

# EXHIBIT

# 3

## Expert Report by Ryan D. Enos, PhD

1. My name is Ryan Enos. I am a Professor of Government at Harvard University. I am also the Director of the Center for American Political Studies and an affiliate of the Institute for Quantitative Social Science. I have been on faculty at Harvard since 2010 and was promoted to Professor with tenure in 2018. I received my PhD in Political Science from UCLA in 2010 and my BA in Political Science and History from the University of California, Berkeley in 2001. At Harvard, I teach both undergraduate and graduate-level courses and I have taught courses on the analysis of elections, political geography, political behavior and psychology, and American politics.
2. My professional research focuses on voting behavior, the politics of race and ethnicity, social and electoral geography, and campaigns and elections. I have published articles on these and other topics in peer-reviewed scholarly journals, including the *American Political Science Review*, *American Journal of Political Science*, *Election Law Journal*, *Journal of Empirical Legal Studies*, *Political Analysis*, *Proceedings of the National Academy of Sciences*, *Nature Human Behavior*, *Science Advances*, and other journals. I am the author of *The Space Between Us: Social Geography and Politics* (2017 Cambridge University Press). My published research has used statistical analysis, geographic methods (including the use of Geographic Information Systems (GIS)), and other methods of analysis and has used data from the U.S. Census, election returns, voters lists, and other records of voter behavior.
3. My compensation is \$450 per hour. No part of my compensation is dependent upon the conclusions that I reach or the opinions that I offer.
4. I have been retained by the United States to evaluate whether voting is racially cohesive and polarized in certain Congressional Districts (CDs) and State House Districts (HDs) and whether minority voters have opportunities to elect their preferred candidates under the former district boundaries, whether minority voters would be able to elect their preferred candidates in these districts under the state enacted redistricting plans, and whether minority voters would be able to elect their preferred candidates in these districts under the illustrative plans provided by the United States. I also report on relative proportionality for Latino voters under the former and enacted plans and, finally, whether there is evidence in social science research that socio-economic factors are related to voter turnout.

## Summary of Findings

5. In CD 23 and in the newly created CD 38, Anglo and Latino voters vote cohesively within their own group and are polarized between groups, with each group voting cohesively for different candidates. The same pattern is present in HDs 31, 43, 74, 75, 76, 77, 78, 79, 81, and 118. Anglos, Latinos, and Blacks in CDs 6 and 24 each vote cohesively within their own group and are polarized, with Latinos and Blacks voting cohesively for the same candidates and Anglos voting cohesively for different candidates.
6. Under the enacted plan, minority voters in CDs 6, 23, 24, and 38 do not have an opportunity to elect their preferred candidates.
7. Under the enacted plan, minority voters in HDs 31 and 118 do not have an opportunity to elect their preferred candidates.
8. Under the former plan, HDs 74, 75, 76, 77, 78, and 79 were Latino opportunity districts in West Texas. The removal of HD 76 reduces the number of opportunity districts in West Texas from six to five.

- 9.** Under the enacted plan, minority voters in HD 81 do not have an opportunity to elect their preferred candidate.
- 10.** Under the enacted plan, representation for Latino voters has become less proportional for both the Texas Congressional delegation and the Texas House of Representatives. While the Latino Citizens Voting Age Population (CVAP) in Texas has significantly increased between 2010 and 2020, the proportion of seats in which Latinos have an opportunity to elect their preferred candidate has slightly decreased.
- 11.** Illustrative CDs 23 and 38 provide an opportunity for minority voters to elect their preferred candidate.
- 12.** Illustrative HDs 31, 74, 75, 77, 78, 79, 81, and 118 provide an opportunity for minority voters to elect their preferred candidate.
- 13.** There is strong evidence from social science research that low socio-economic status is correlated with low voter turnout.

## Elections Analyzed and Data Sources

14. For the examination of racially polarized voting, I examined CD 23 in West Texas, CDs 6 and 24 in the Dallas-Fort Worth area, and the newly created CD 38 in Harris County, HDs 31 and 43 in South Texas, HDs 74, 75, 76, 77, 78, 79, and 81 in West Texas and El Paso, and HD 118 in Bexar County. I also analyzed the counties surrounding these districts.

15. I examined the opportunity for minority voters to elect their preferred candidates in these same districts.

16. I examined conditions under the district boundaries in place since 2013,<sup>1</sup> which I will call the “former plan”, the boundaries enacted by the state after the 2020 Census, which I will call the “enacted plan,” and the illustrative plan from the United States.

17. Election returns came from data at the Voting Tabulation District (VTD) level provided by the state<sup>2</sup> and data on CVAP at the VTD-level created by merging data from the 2016–2020 American Community Survey (ACS) and 2020 Decennial Census with VTDs. The CVAP data was compiled by the United States at my request. I verified the quality of their data after it was provided to me. I also verified my analysis using Voting Age Population (VAP) and Spanish Surname Voter Registration (SSVR), also obtained from the state. The results were substantively unchanged using these different data sources.

18. I examined “endogenous” and “exogenous” elections in which a minority candidate was running for one or both of the two major parties (Republican or Democrat). Endogenous elections are elections for U.S. Representative in CDs and State Representatives in HDs. Exogenous elections are state-wide elections. For the racial bloc voting analysis, I only used elections which were contested by both of the major parties. To select elections, I examined every statewide General election from 2014 to 2020<sup>3</sup> and every Congressional and State House election in the districts in question from 2014 to 2020 and determined whether a racial minority candidate was running for one of two major parties. In the CDs in the Dallas-Fort Worth Metroplex, where I was asked to examine the cohesiveness and opportunity for Black and Latino voters, I used elections that included either a Black or a Latino candidate. In all other analysis, I used elections that included a Latino candidate.<sup>4</sup> I chose to start the analysis in 2014 because this gives the longest series of elections since the former Congressional Districts were enacted in 2013. Having a large number of elections means that no single election carries too much weight in the analysis and, thus, the analysis is not overly influenced by a particular year or candidate who may not be representative of larger trends. With this data, I am able to examine, at least, seven exogenous elections in each district.<sup>5</sup>

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<sup>1</sup>There were minor changes to this plan in 2019, limited to Tarrant County. Plan H411 was a remedy for a finding of racial gerrymandering in HD 90. All the districts I analyze were unaffected by these changes.

<sup>2</sup><https://redistricting.capitol.texas.gov/>

<sup>3</sup>Possible elections to use were President, U.S. Senate, Governor, Lieutenant Governor, Attorney General, Comptroller, Commissioner of Land Use, Commissioner of Agriculture, Railroad Commissioner, Justice of Supreme Court of Texas, and Judge for Court of Criminal Appeals (CCA).

<sup>4</sup>In the analysis of CD 23, I also include two endogenous elections with a Filipino-American candidate with a Spanish surname.

<sup>5</sup>Another strategy could be to use only a single election in a given year, but the advantage of using multiple elections in a year, when available, is that it more accurately captures the average preferences of voters and avoids putting too much weight on a single candidate, who may be more or less popular for idiosyncratic reasons.

One might consider also starting the analysis in 2016 because the election of Donald Trump is sometimes considered an important inflection point in American politics and so earlier elections might be less relevant for understanding more recent elections and how voters are expected to behave in the future. I examined how my conclusions would be changed by only including elections from 2016–2020 and found that my substantive conclusions would be unchanged. Notably, in nearly every district examined for this report, the opportunity for the election of minority-preferred candidates actually became stronger after 2016.

## Racially Polarized Voting Analysis

**19.** In analyzing racially polarized voting, I am examining whether a racial minority group systematically prefers one candidate, while a majority group prefers another candidate, with particular attention to cohesiveness when groups are voting for a candidate of their own racial group. There is no universally accepted threshold for determining if a group votes cohesively, but a threshold of 60% is reasonable because it signals a clear preference by the racial group. So, if at least 60% of the voters from one group vote for one candidate, I will call the voters cohesive in their preference for this candidate. A smaller threshold, say a simple majority, is less clearly cohesive and would give me less confidence in my determination.<sup>6</sup> If another racial group cohesively supports a different candidate, then I say the election is racially polarized between the groups.

**20.** To examine this, in each election, I used a statistical procedure called ecological inference (EI). EI estimates group-level preferences based on aggregate data.<sup>7</sup> I analyzed the results for four racial demographic groups: Non-Hispanic Black, Latino, Anglo, and Other, based on CVAP.<sup>8</sup> The results of this analysis are estimates of the percentage of each group that voted for each candidate in each election. For each election, I produce the mean estimate of vote share and a 95% confidence interval.<sup>9</sup> Full results of this analysis for the former and enacted districts are in Appendix A and I include figures below for certain areas of interest. I discuss the analysis of illustrative districts later in the report.

### Congressional District 23 (West Texas)

**21.** Both Latino and Anglo voters in CD 23 are cohesive within their own group and polarized from each other in all relevant elections. The results are shown in Figure 1. In this and similar figures, Latinos are represented by green and Anglos by pink. Each election is on a different horizontal line and the points represent the vote for the Democratic candidate. Triangles for Latinos and circles for Anglos represent the mean estimate for each group and the 95% confidence intervals are represented by the horizontal lines. Examining how far a group is to the right of 60% gives a sense of how cohesive the group is in support of the Democratic candidate. Values below 40% represent cohesive voting for the Republican candidate.<sup>10</sup> The distance between the groups gives a sense of the level of racial polarization. The party and race for the two major-party candidates are listed next to the office (D = Democrat, R = Republican, A = Anglo, L = Latino, B = Black). The estimates using the boundaries of the district in the former plan are shown in the left panel and in the enacted plan in the right panel.

### Congressional Districts in the Dallas-Fort Worth Metroplex

**22.** Voting in CD 24 is represented in Figure 2. This figure is the same as Figure 1, but Black voters are represented by purple squares. Latino, Black, and Anglo voters are each cohesive within their own group in nearly all elections.<sup>11</sup> Notice that, based on the 95% confidence intervals, there is more uncertainty in the level of cohesiveness for Blacks. This greater uncertainty, compared to CD 23, is expected because of

<sup>6</sup>Due to statistical uncertainty (see footnote below) the closer a threshold is set to 50%, the more difficult it is to clearly understand which candidate a majority of the group supports. A threshold of 60% has also been used in previous academic treatments of the subject, see A.J. Lichtman, F. Hebert, "A general theory of vote dilution," *La Raza Law Journal*, 6 (1993), pp. 1-25.

<sup>7</sup>The analysis is performed using the package eiPack in the statistical software R: <https://cran.r-project.org/web/packages/eiPack/index.html>

<sup>8</sup>To define these groups, I used the same methodology as the state, where Latino includes anyone of Spanish-speaking heritage, regardless of race, Black includes anyone with any Black ancestry, Anglo includes Caucasians not of Hispanic heritage, and anyone else is defined as Other. In discussing the results, I use the word "race" and "ethnicity" interchangeably, even though they are not the same thing.

<sup>9</sup>The 95% confidence interval is a measure of uncertainty in the estimates from the model. For example, the model might estimate that 90% of one group voted for a candidate, with a 95% confidence interval of 87-93%. This means that 95% of the simulated estimates for this group fall in the range of 87-93%, with 90% being the mean estimate.

<sup>10</sup>In some cases, the election was also contested by a candidate from a party other than Democratic or Republican, so non-Democratic votes may represent a mix of votes for Republicans and other candidates. In practice, nearly all votes in these elections not going to the Democratic candidate went to the Republican candidate.

<sup>11</sup>Latinos are cohesive in all 19 exogenous and endogenous elections. Anglos are cohesive in 18 of 19. Blacks are cohesive in all of the 19 elections.

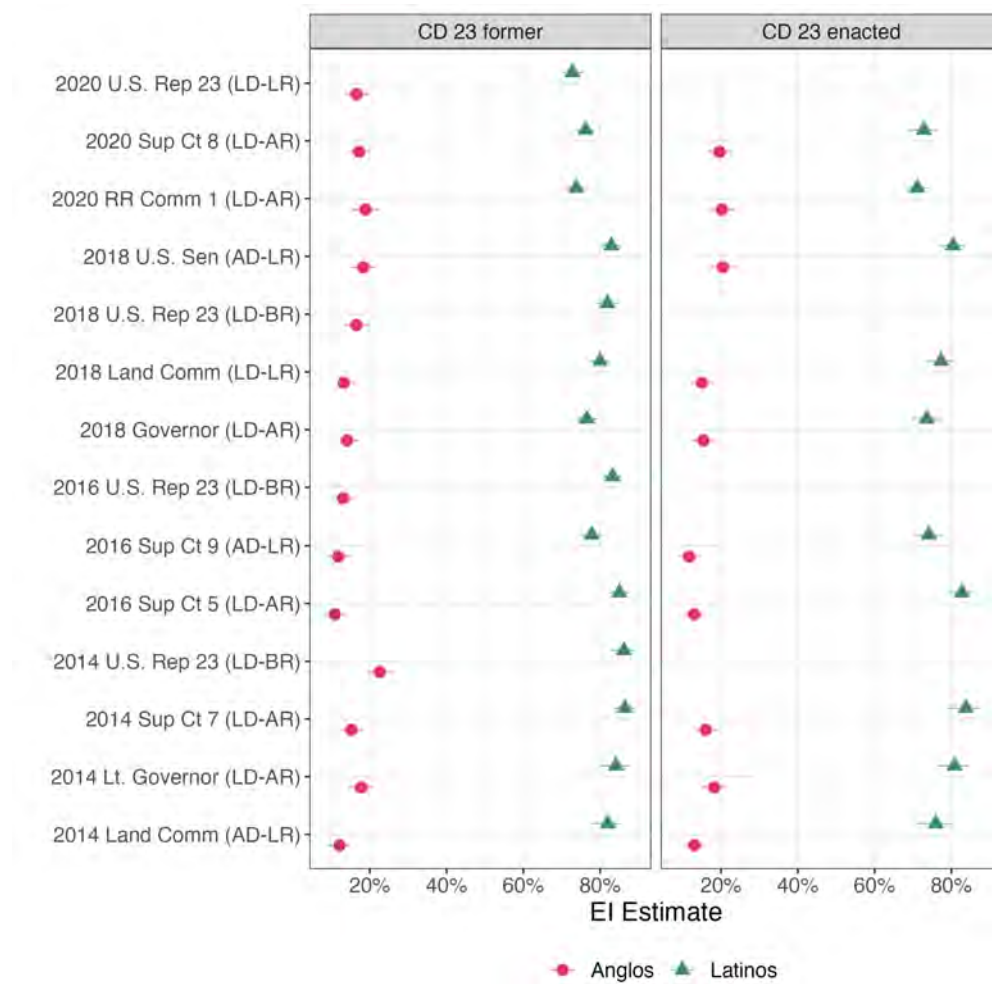


Figure 1: CD 23 voting by race

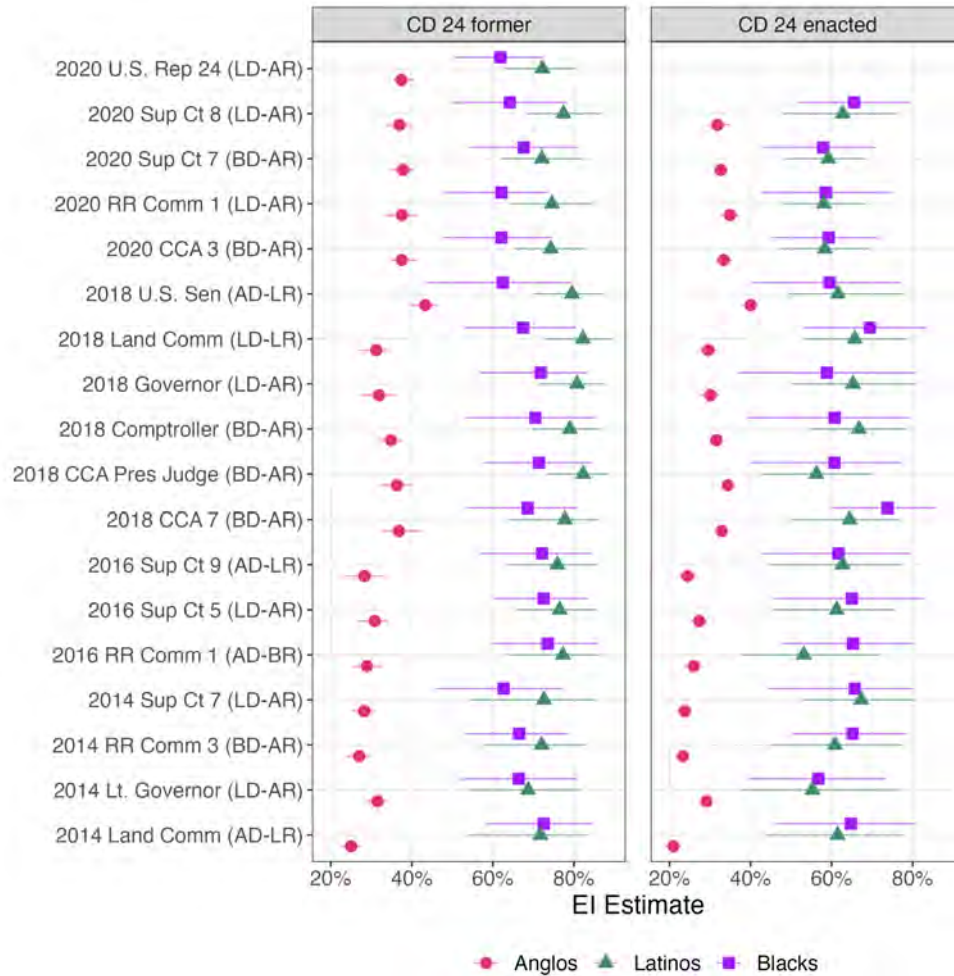


Figure 2: CD 24 voting by race

the relatively smaller populations of minority voters in CD 24. However, because of the consistency across all elections — the mean estimate for Black vote is greater than 60% in every election — the group is cohesive in my opinion.<sup>12</sup> Across all elections under the former plan, Blacks and Latinos vote cohesively for the Democratic candidate, while Anglos vote cohesively for the Republican candidate (except for the 2018 election for U.S. Senate), meaning that Blacks and Latinos are both polarized from Anglos.

**23.** A similar pattern can be found in CD 6 (see Figure 3), with Latino, Black, and Anglo voters each cohesive within their own group in every election. In contrast to CD 24, in CD 6 there is, based on the 95% confidence intervals, more uncertainty in the level of cohesiveness of Latinos, while there is greater certainly the cohesiveness of Blacks. However, because of the consistent pattern of Latino voting, the group is cohesive in my opinion. Across all elections, Blacks and Latinos vote cohesively for the Democratic candidate, while Anglos vote cohesively for the Republican candidate, meaning that Blacks and Latinos are both polarized from Anglos.

**24.** Looking at results from the CDs 24 and 6 pooled together (Table A5) and across all of Dallas and Tarrant Counties (Table A4), there is cohesion within each of the racial groups and clear polarization between Latinos

<sup>12</sup>In every election, the mean estimate is that Blacks support a candidate at greater than 60%, while the 95% confidence intervals also cross 60% in 17 of the 19 elections. This means that for each individual election, the best guess is that the support was greater than 60% but I cannot say with 95% confidence that the group voted more than 60% cohesively in that single election.



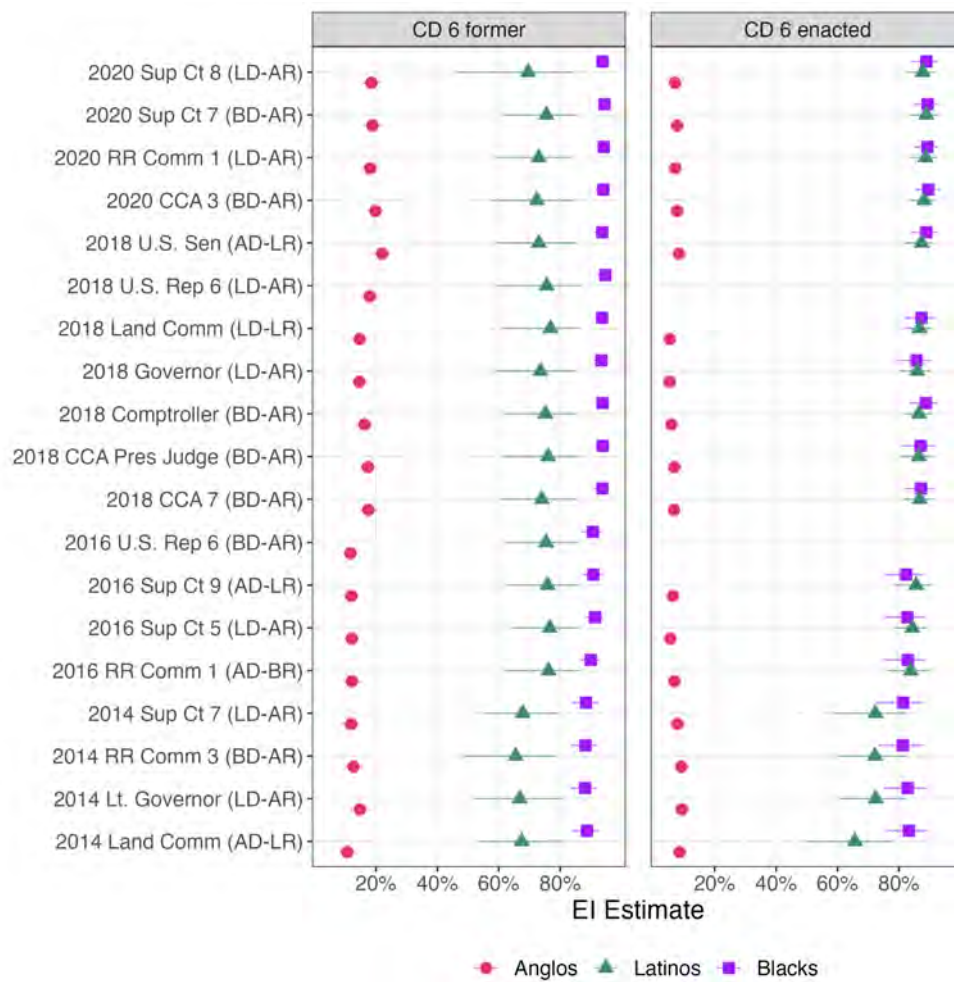


Figure 3: CD 6 voting by race



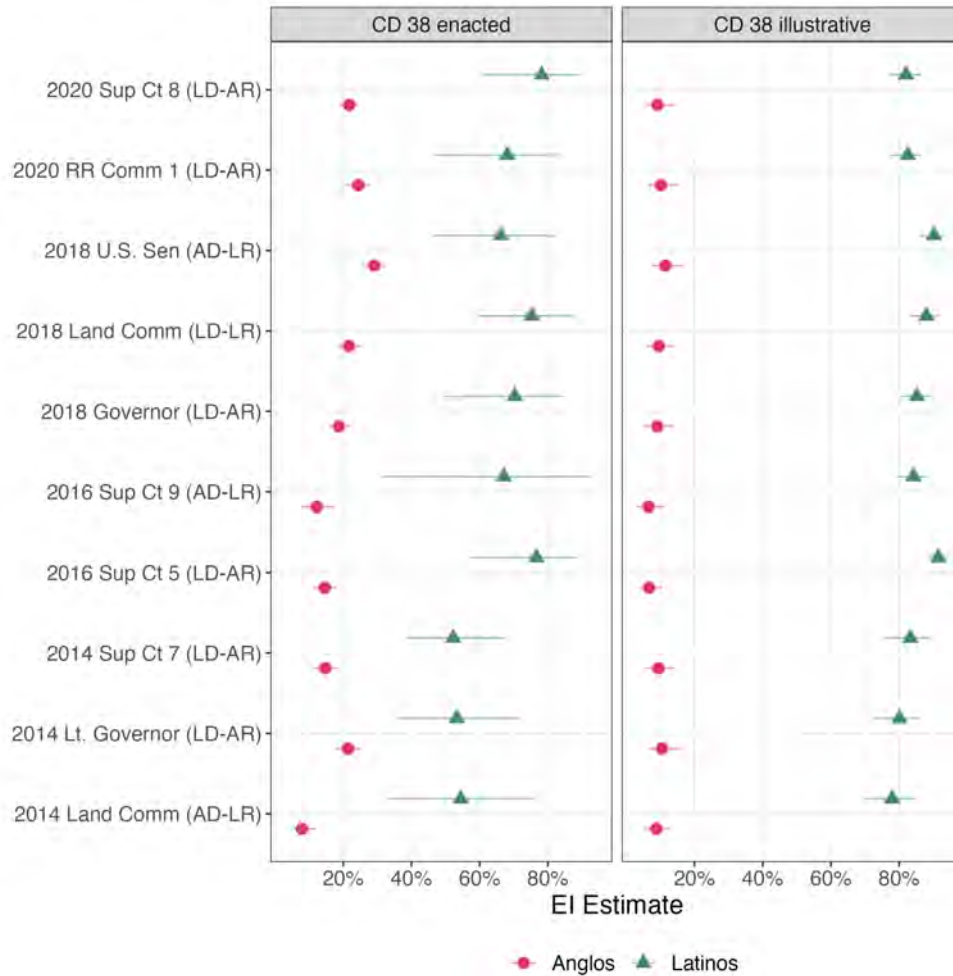


Figure 4: CD 38 voting by race

and Anglos and between Blacks and Anglos. Compared to the results in individual districts, there is also less uncertainty in the estimates, reflected in the narrower 95% confidence intervals.<sup>13</sup>

#### Congressional District 38 (Harris County)

**25.** Anglo voters in enacted CD 38 are cohesive in every relevant election. Latino voters are cohesive in 7 of the 10 elections analyzed with an average of 66% cohesion across all the elections. Latinos and Anglos are polarized from each other in all relevant elections. See Figure 4.

**26.** In Harris County as a whole (see Table A7), Latinos and Anglos are each cohesive within their group and are polarized from each other in all relevant elections.

#### State House Districts 31 and 43 (South Texas)

**27.** In both HDs 31 and 43, Latino and Anglo voters are cohesive within their own group and polarized from each other in all relevant elections.<sup>14</sup> See Figures 5 and 6.

<sup>13</sup>The smaller 95% confidence intervals in the pooled and county-level analysis are because there are more VTDs to use in the estimation, which makes for a larger sample and more statistical precision.

<sup>14</sup>Note that the 95% confidence interval for Latinos crosses in HD 43 60% in two elections, but the overall pattern is clear.

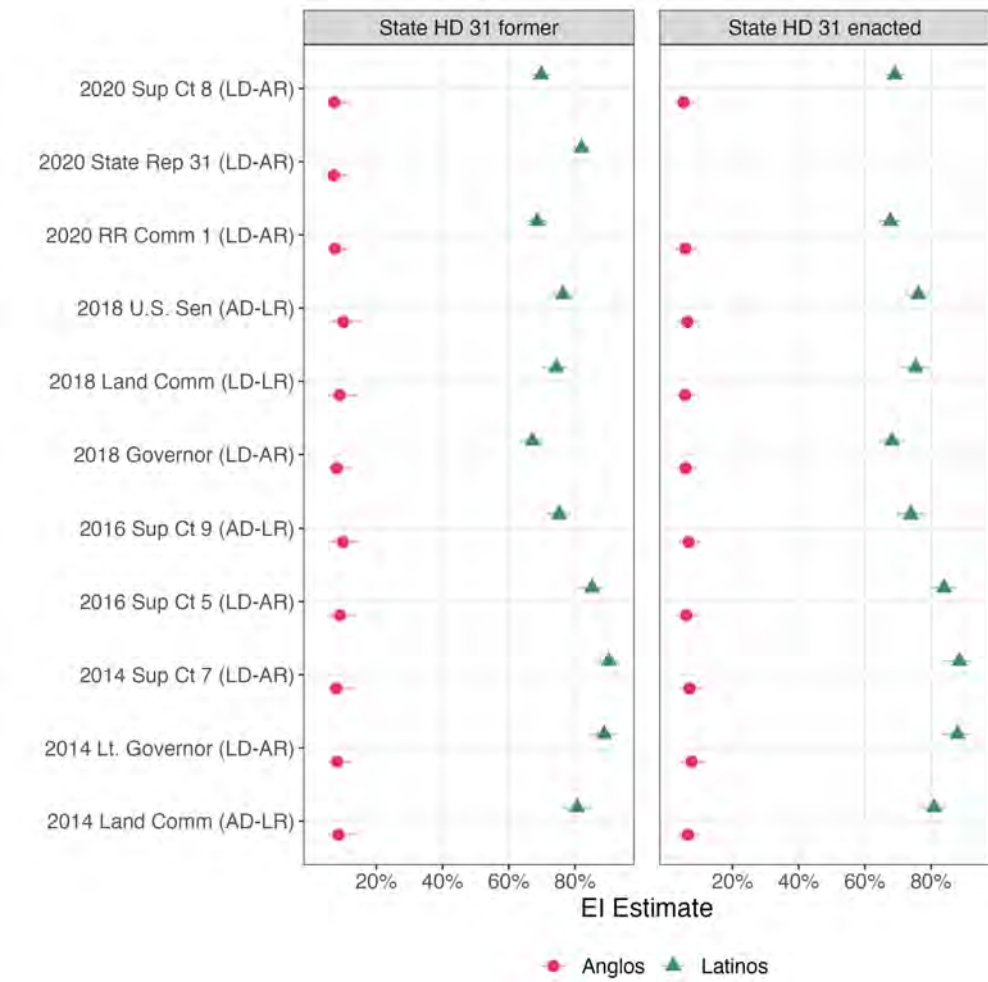


Figure 5: HD 31 voting by race

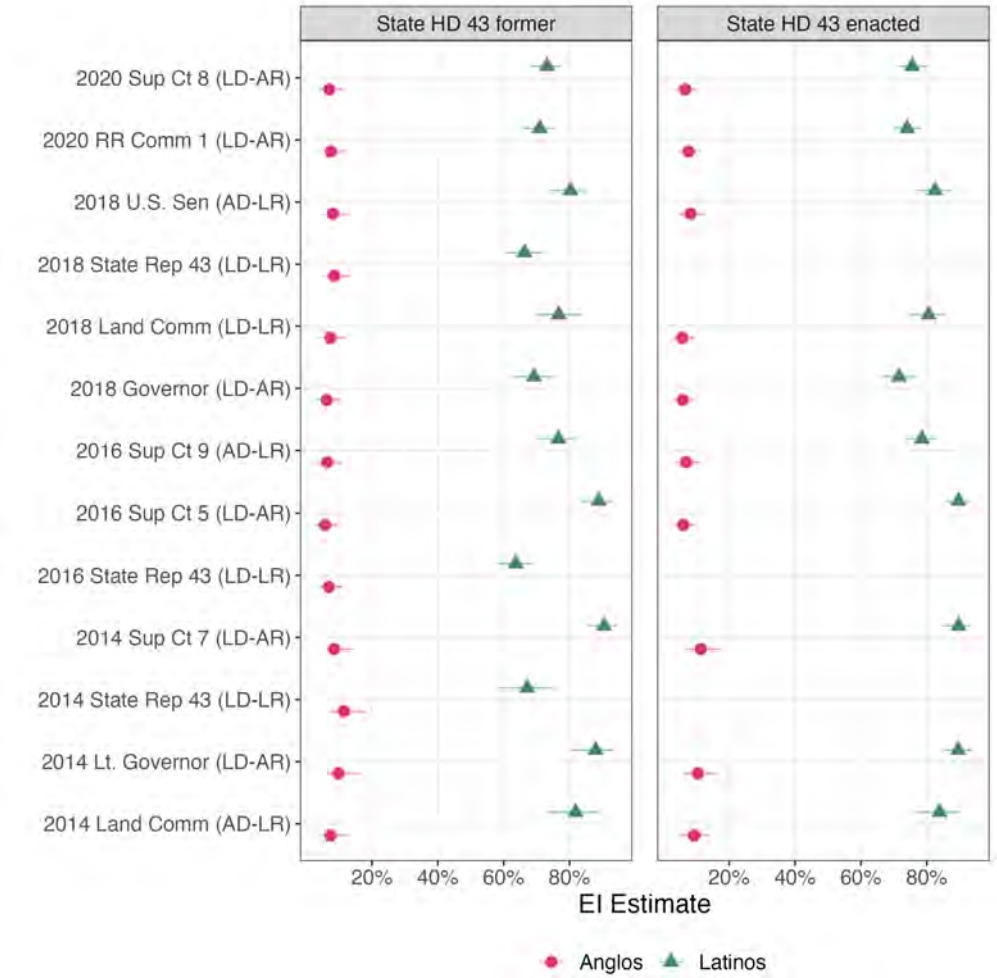


Figure 6: HD 43 voting by race

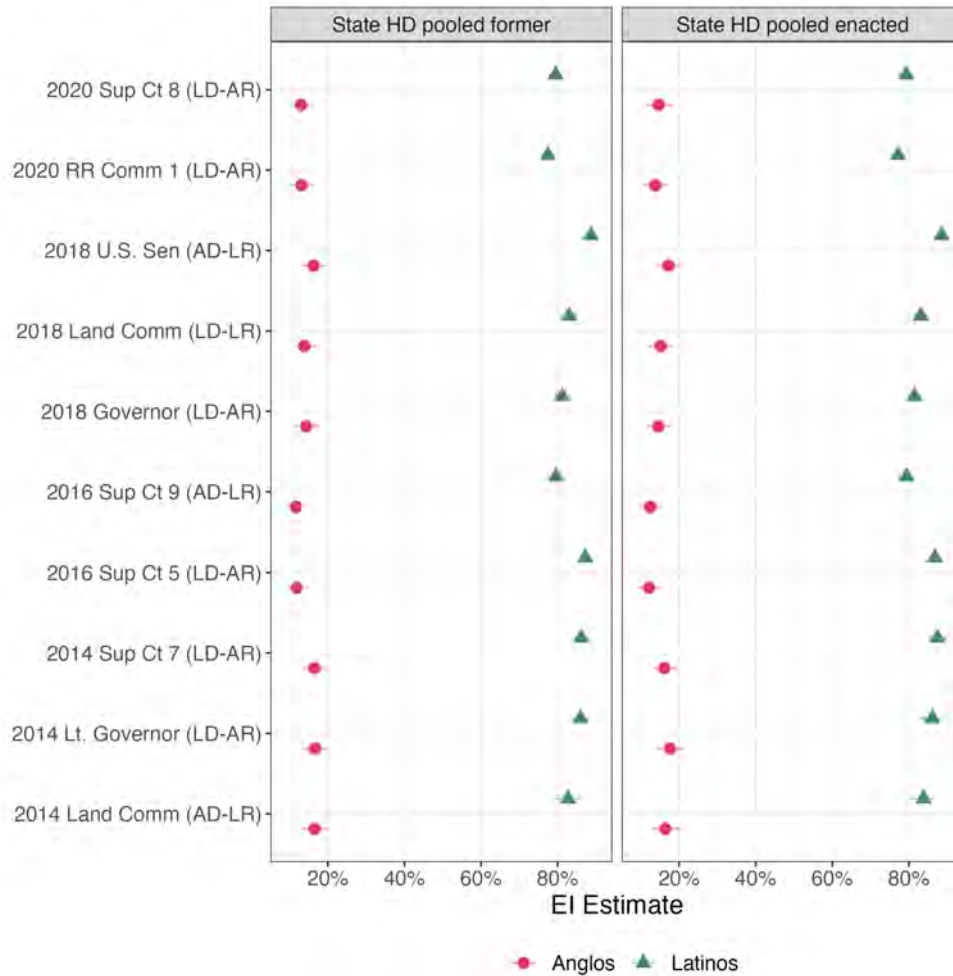


Figure 7: West Texas House Districts voting by race

#### State House Districts in El Paso and West Texas

**28.** Latino and Anglo voters in HDs 74, 75, 76, 77, 78, 79, and 81 are cohesive within their group and polarized from each other in nearly all elections (see Tables A11–A17).<sup>15</sup>

**29.** Looking at all of the West Texas districts pooled in Figure 7 and Table A18, Latinos and Anglos across the region are each cohesive within their group and polarized from each other.

#### State House District 118 (Bexar County)

**30.** Latino and Anglo voters in HD 118 are each cohesive within their group and polarized from each other in all relevant elections. See Figure 8.

<sup>15</sup>The only exceptions are all 2014 elections in HD 81. Note that when using SSVR analysis, Latino voters do appear cohesive in these elections.

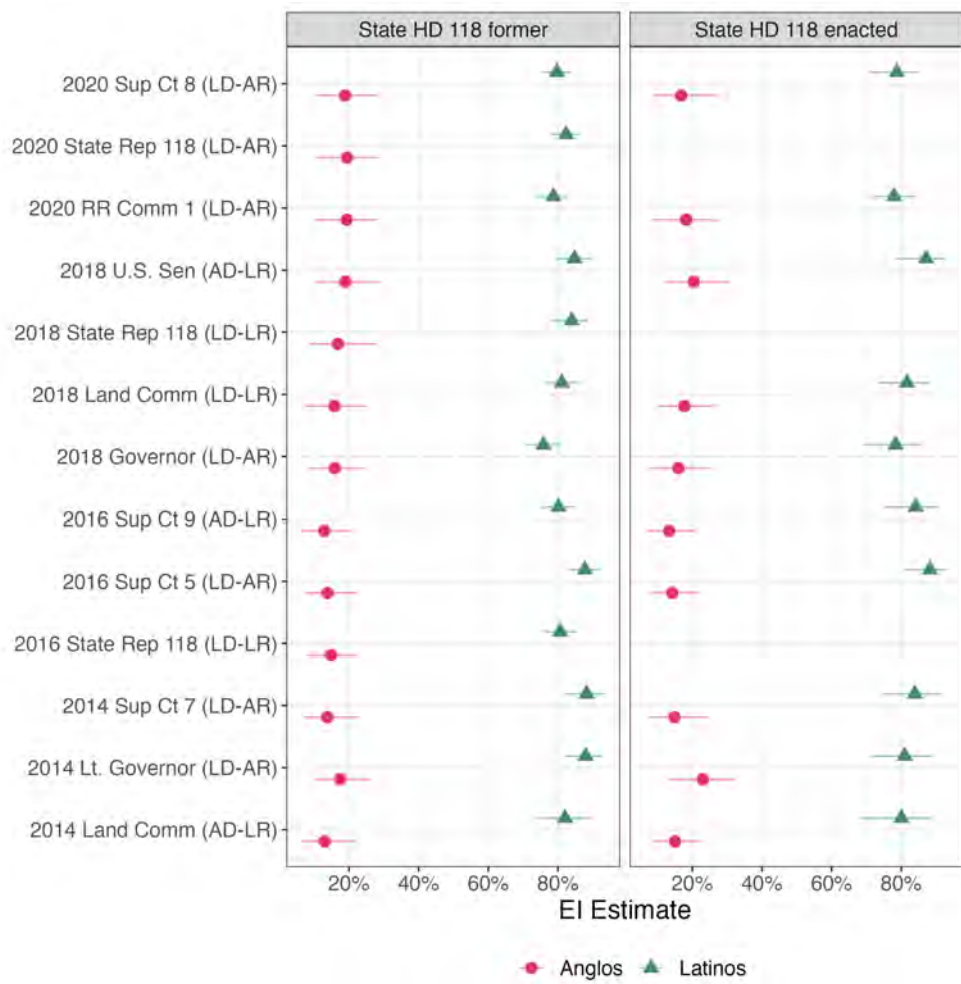


Figure 8: HD 118 voting by race

## Opportunities for Minority Preferred Candidates in Former and Enacted Plans

**31.** Having concluded that there is strong evidence for cohesive and polarized voting in the districts in question in nearly all elections, I examined the opportunity for minority voters to elect candidates of their choice. I limit my analysis to those elections where a minority-candidate is preferred by minority voters, which is determined by the analysis of cohesive voting above.<sup>16</sup> A list of the statewide elections and candidates that I used is in Table B1 in Appendix B. For each contested endogenous and exogenous election in each district, I examine the average vote margin for the minority candidate under the former and enacted plans in contested elections.<sup>17</sup> The margin is the vote percent won by the minority preferred candidate compared to the next closest opponent, so a positive number means the minority candidate won the plurality of the vote and would have been the winner of the election. A negative number means the minority candidate would have lost.<sup>18</sup> I also examine the proportion of elections that the minority preferred candidate would be expected to win under the former and enacted plans. Comparing the proportion of elections won in the former and enacted plans will indicate if minority voters were able to elect their preferred candidate under the former plan and if that opportunity is expected to change under the enacted plan. Note that in the enacted districts, there are no endogenous elections to examine because the newly added voters to the district did not vote in the district prior to the redistricting.

**32.** To determine if a district is an opportunity district, I examine whether the minority-preferred candidate is expected to win a typical election. This does not mean that the minority-preferred candidate will win in every election because variation in the quality of candidate and other factors, such as variation in voter turnout, may affect the outcome of any particular election. However, even with idiosyncratic variation in outcomes due to these factors, a minority-preferred candidate should win most elections if the district provides opportunity for minority voters to elect their preferred candidate. As a rule of thumb, I set a threshold for opportunity of the minority-preferred candidate winning more than 50% of elections.<sup>19</sup> In each district, I also examine the margin for the minority candidate because that allows me to see if the district, due to demographic changes or other factors, is becoming more competitive for minority-preferred candidates over time. The margin also gives a sense of the magnitude of the change in the district from the former to the enacted plan.

**33.** The summary of these findings are in Table 1 for CDs and Table 4 for HDs. In these tables, I show the average margin and for the minority-preferred candidate for all contested elections and the proportion of all elections (contested or uncontested) won by the minority-preferred candidate under the former and enacted plans. For each district, I also produce a figure showing the vote across each election for the minority preferred and non-preferred candidate in the former and enacted district in each contested election (see Figure 9 as an example). The former plan is in the top panel and the enacted plan in the bottom panel.

<sup>16</sup>I limit to those elections where minority voters vote cohesively for the minority candidate because the presence of cohesive voting indicates that there is a clear preference among minority voters. In the absence of this cohesion, say if only 50% of minority voters have voted for a candidate, then there is no clear preference for a candidate. Another approach would be to simply use all the elections that were used in the analysis of racially polarized voting for the opportunity analysis. If I do this, my substantive conclusions are unchanged. Appendix D shows the results of the opportunity analysis using all the elections used for the racially polarized voting analysis.

<sup>17</sup>In non-contested elections, the candidate receives 100% of the vote, so including these elections severely distorts the averages.

I conduct the analysis in the enacted plan in two ways to account for the fact that the enacted districts were drawn with 2020 Census data and so may be based on VTDs with slightly different boundaries than the VTDs based on 2010 Census Data. This can result in imperfect overlap between the VTDs in place after 2010 and the VTDs used to create the new district. The first way is overlaying the VTDs onto the enacted district and assigning each VTD to the district in which the majority of that VTD falls. The second way is to use a process of spatial interpolation in which I assign votes to the district based on the proportion of the area of the VTD that falls into that district. In practice, because only a very small portion of VTDs are not completely contained within the boundaries of single enacted district, the results of my analysis with these two different methods is nearly identical and so I report the results from the first method.

<sup>18</sup>In calculating these average margins, I average across all elections in question in each year, so some years have more elections than others. Another approach would be to take average margin in each year or a single election in each year (say the highest office on the ballot) and average those. I checked for how my results would be changed with this approach and found that it made no substantive difference for the conclusions of the report.

<sup>19</sup>When considering whether a district provides opportunity, if the proportion of elections won is close to this threshold so that the case for opportunity is less clear-cut, then it is useful to also consider whether minority-preferred candidates have consistently won endogenous elections in the district.



District	Former Districts		Former Districts		All Elections		Enacted Districts	
	Endogenous Elections	Exogenous Elections	Exogenous Elections	Exogenous Elections	Margin	Win %	Margin	Win %
	Margin	Win %	Margin	Win %	Margin	Win %	Margin	Win %
<b>West Texas:</b>								
23	-1.96	0	-4.44	14	-3.54	9	-11.28	0
<b>Dallas-Fort Worth Metroplex:</b>								
6	-13.49	0	-11.90	0	-12.11	0	-31.02	0
24	-1.33	0	-10.85	0	-10.17	0	-29.16	0
<b>Harris County:</b>								
38							-34.42	0

Table 1: Congressional Districts Opportunity District Analysis

The non-minority-preferred candidate is represented by gray lines and the minority-preferred by black lines. Each election is listed on the horizontal axis and the vote percent received on the vertical axis. Comparing the black and gray lines shows the support for minority-preferred candidate compared to the non-minority preferred candidate and comparing the top and bottom panel shows how this changes across the former and enacted plans.

**34.** For select districts I have added maps of the changes to the district in Appendix E. In each of the maps, each shape is a VTD, shaded either by the average vote in exogenous elections for minority-preferred candidates or the percent Latino CVAP, with darker colors representing higher average vote for the minority-preferred candidate or higher percent CVAP, respectively.<sup>20</sup> The orange-bordered VTDs represent VTDs removed from the district in the enacted plan and the green borders represent VTDs that were added to the district in the enacted plan. Examining the shading of the green-bordered VTDs and comparing to the shading of the orange-bordered VTDs gives a sense of how the opportunity for minority-preferred candidates changes across the former and enacted plan or how the demographic make-up of the district changes across the former and enacted plans.

### Congressional District 23 (West Texas)

**35.** CD 23 is represented by the first line of Table 1 and in Figure 9. Under the former plan, this was not an opportunity district for Latino voters because the Latino-preferred candidate won only one of the eleven contested elections. However, looking at the margins for the minority-preferred candidate over time, it is clear that minority-preferred candidates were more competitive in recent elections. William Hurd (Black Republican) defeated minority-preferred incumbent Pete Gallego (Latino Democrat) in 2014. Gallego lost to Hurd again in 2016. Minority-preferred candidate Gina Ortiz Jones<sup>21</sup> was the Democratic candidate in 2018 and 2020, losing to William Hurd in 2018 and to Tony Gonzales (Latino Republican) in 2020. These elections were decided by less than 2 percentage points (1.96) on average. The five exogenous elections were not as close, with the minority preferred candidate having a margin -4.44 percentage points on average, although the results have been closer since 2016 (-2.71 percentage points on average) and the minority preferred candidate (Dori Garza, Latina Democrat) did capture a plurality in 2016 Texas Supreme Court election. Under the enacted plan, the average margin for the non-minority preferred candidate would grow to more than 11 percentage points.

**36.** To illustrate the change in the district from the former to the enacted plan, I have included the map in Figure E1 that is shaded by the average vote in exogenous elections for minority-preferred candidates, with darker colors representing higher average vote for the minority-preferred candidate. The orange bordered VTDs represent VTDs removed from the district in the enacted plan and the green borders represent VTDs that were added to the district in the enacted plan. In this map, because the changes were concentrated in the El Paso and San Antonio regions, I have included inset versions focusing on these areas in the lower left corner (El Paso on the left, San Antonio on the right). In Table 2, I summarize these changes. This table shows the average vote for the minority preferred candidate in the VTDs that were added, removed, and kept across

<sup>20</sup>The average vote share is constructed by summing the number of votes in the VTD for the preferred candidate in all the elections in question and dividing by the sum of the total votes cast in the VTD in these elections.

<sup>21</sup>Ortiz Jones' is Filipino-American.



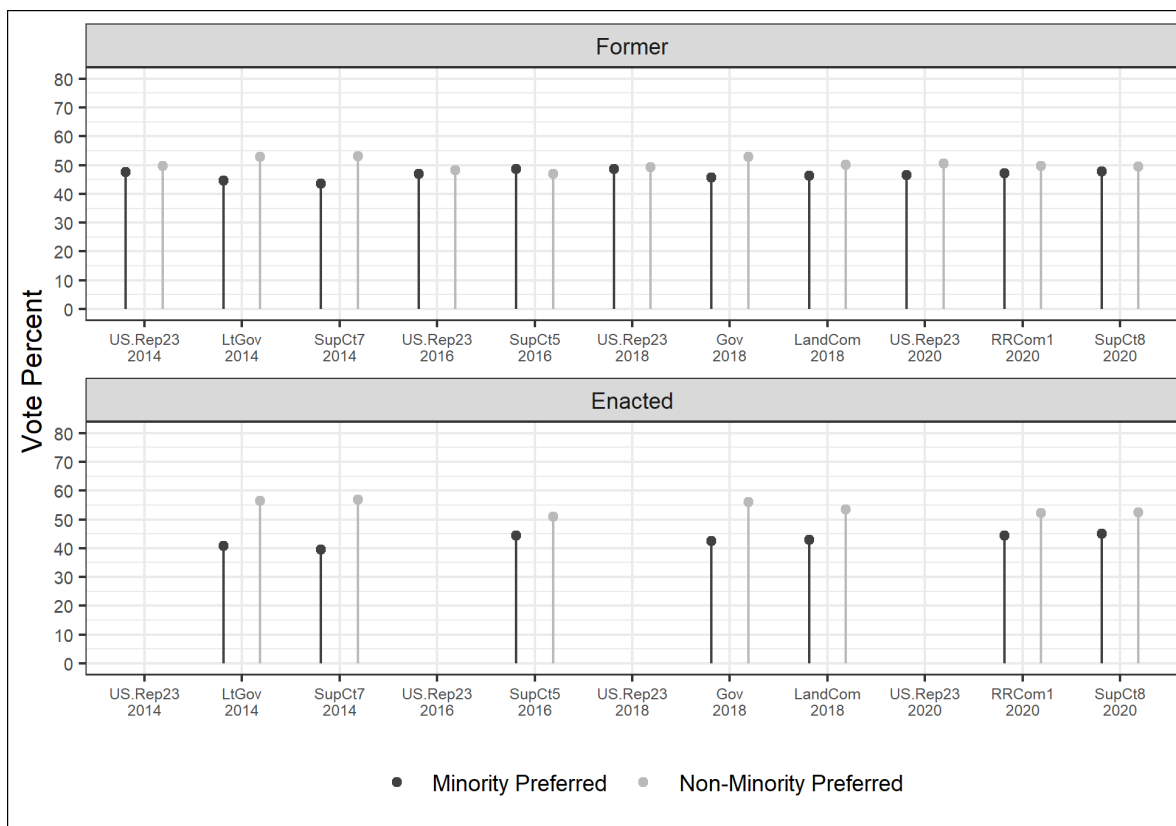


Figure 9: Congressional District 23

VTD Status	Minority Preferred Vote %	Latino CVAP %	SSVR %	SSTO %
Added	48.74	50.69	42.02	38.64
Kept	42.73	58.28	51.00	43.15
Removed	65.21	74.90	65.28	62.30

Table 2: VTD reallocation: Congressional District 23

the former and enacted plans. The removed VTDs voted, on average 65 percent for the minority-preferred candidate, the added VTDs voted, on average, 49 percent for the minority preferred candidate. Table 2 also shows the changes in percent Latino CVAP, percent SSVR, and percent Spanish Surname Turnout (SSTO), in the added, removed, and kept districts. SSVR represents the percent of all registered voters who had a Spanish surname in 2020. SSTO represents the percent of voter turnout, across all elections, that was by voters with Spanish surnames. In the added VTDs, Latino CVAP is 51%, SSVR 42%, and SSTO 39%. In the removed VTDs, Latino CVAP is 75%, SSVR 65%, and SSTO 62%. To understand the geographic correspondence between the changes in support for the minority-preferred candidate and the racial composition of the district, the map in Figure E1, which shades the VTDs by percent vote for the minority-preferred candidate, can be compared to the map in Figure E2, which shades the VTDs by percent Latino CVAP.

### Congressional Districts in the Dallas-Fort Worth Metroplex

**37.** I have included maps of the changes to the CDs in the Dallas-Fort Worth Metroplex in Figures E3 (former plan) and E4 (enacted plan) in Appendix E. These maps are shaded by the combined percent Black and Latino CVAP by VTD, with darker colors representing a higher proportion of combined Black and Latino CVAP. Each CD is represented by a different color border and diagonal cross-hatching. CD 33 is

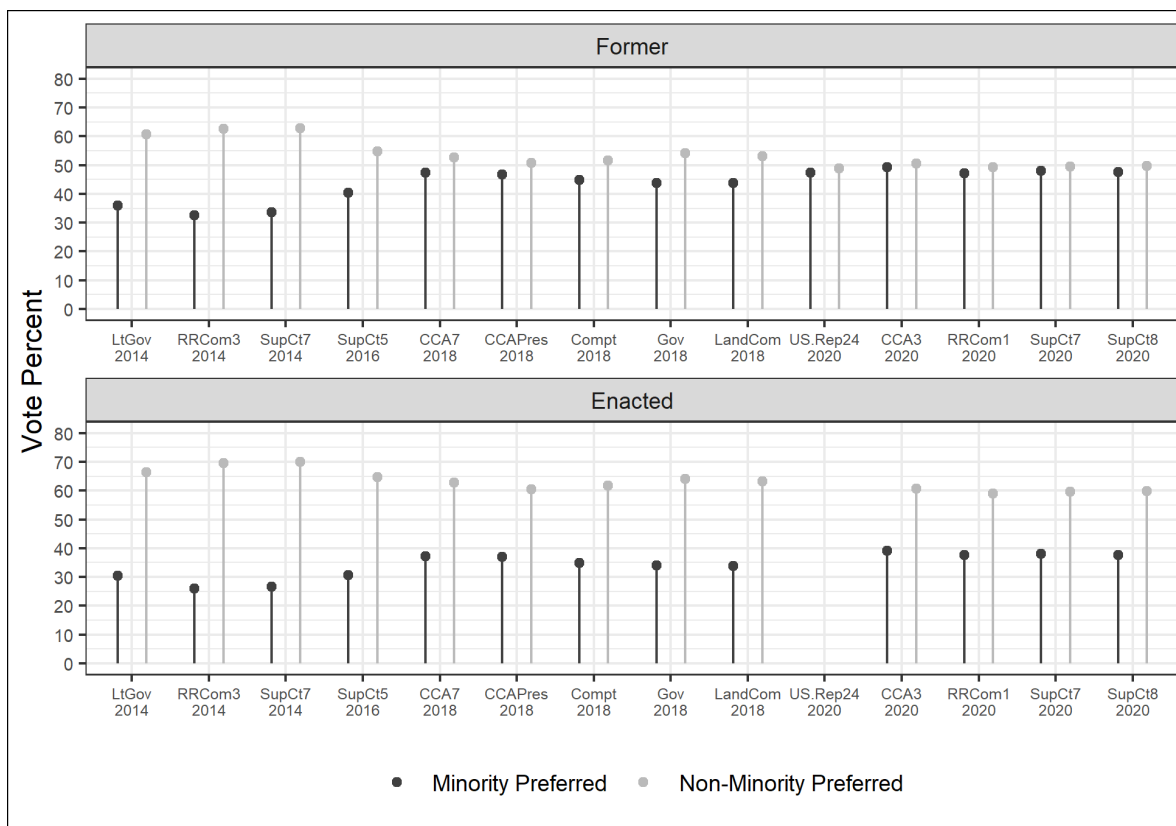


Figure 10: Congressional District 24

yellow and is in the center of both maps. To the north of CD 33 is CD 24 in light blue. To the south of CD 33 is CD 6 in green. Note that in the enacted plan, an arm of CD 6 juts far the north, squeezing between CDs 25 and 30 and causing CD 33 to be wrapped around this north-jutting arm.

**38.** CD 24 is represented by the third row in Table 1 and in Figure 10. Under the former plan, this district was not a Latino opportunity district because the minority-preferred candidate lost all elections. However, similar to CD 23, examining the margins over time makes it clear that minority-preferred candidates were more competitive in recent elections: 2020 was the first time in the past decade that a Black or Latino candidate had run for a major party and Candace Valenzuela (Black-Latino Democrat) finished only 1.33 percentage points behind Beth Van Duyne (Anglo Republican). Comparing the results of thirteen exogenous elections since 2014 that featured a Black or Latino candidate, the average margin of those results for the minority-preferred candidate is -10.85 percentage points, but there is a clear trend of this margin for all minority-preferred candidates getting closer: the average margin for the minority-preferred candidate goes from -28.0 in 2014 to -14.5 in 2016 to -7.1 in 2018 to -1.7 in 2020. Under the enacted plan, the average vote in exogenous elections would become -30.46 points, an 18 point average drop in expected vote for the minority-preferred candidate.

**39.** To illustrate the change in the district from the former to the enacted plan, I have included the map in Figure E5, which again is shaded by average vote for minority-preferred candidates and has orange borders for VTDs removed from the district and green borders around VTDs added to the district in the enacted plan (the geographic continuity of the newly enacted district linking the west to the east is achieved by the slice of VTDs just below the label for the city of Carrollton). Figure E6 is shaded by the percent Latino CVAP. In Table 3, I summarize these changes and list the change in percent Black CVAP. The removed VTDs voted, on average 53 percent for the minority-preferred candidate, the added VTDs voted, on average, 32 percent for the minority preferred candidate.

VTD Status	Minority Preferred Vote %	Black CVAP %	Latino CVAP %	SSVR %	SSTO %
Added	31.79	6.95	11.86	7.89	6.44
Kept	36.32	9.40	13.17	8.95	7.44
Removed	53.25	21.98	19.13	14.05	12.25

Table 3: Congressional District 24: VTD reallocation

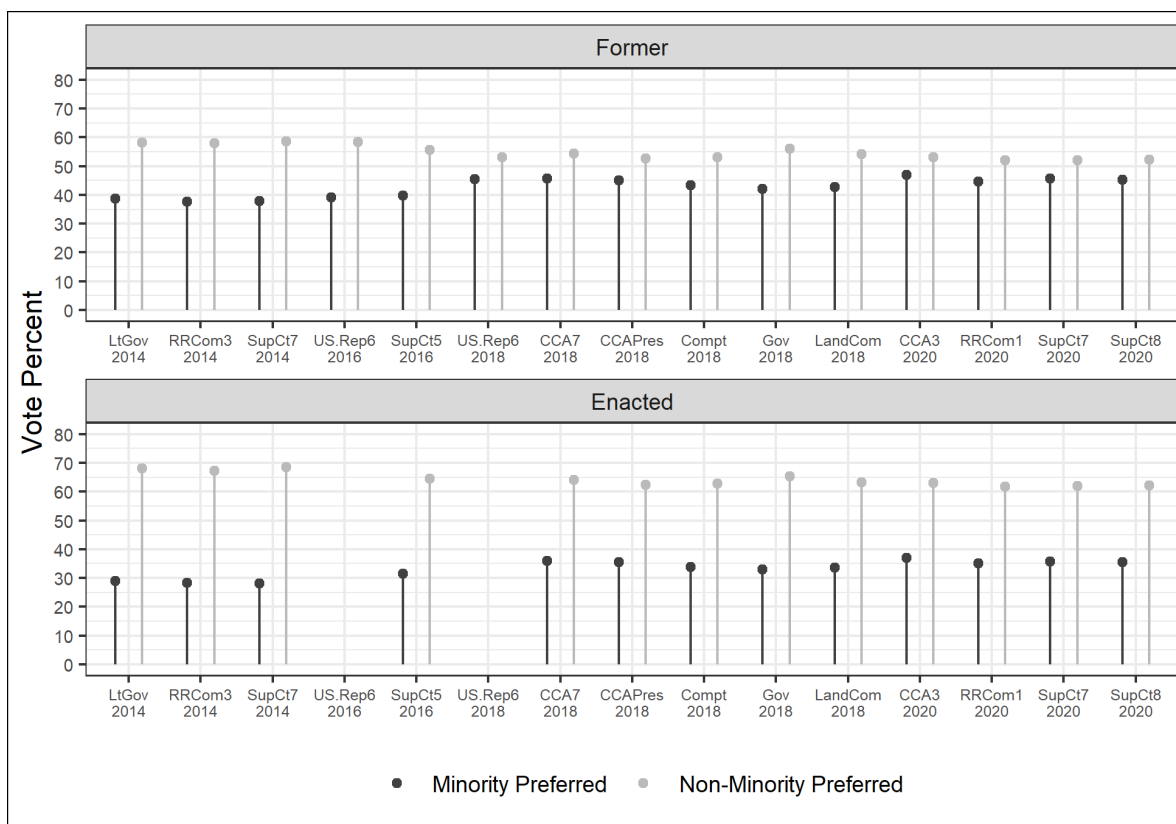


Figure 11: Congressional District 6

40. CD 6 is represented by the second row in Table 1 and Figure 11. In this district there was no opportunity for minority-preferred candidates in the former plan. Endogenous and exogenous elections there have not been competitive and the minority preferred candidates have not won any these elections. However, elections have trended toward competitiveness since 2014, with the average margin for all minority-preferred candidates decreasing from -20.1 in 2014 to -17.8 in 2016 to -9.85 in 2018 to -6.74 in 2020 (see Figure 11). Under the enacted plan, the margin in these elections would have been -31 percentage points. The changes to CD 6 are represented by the maps in Figures E7 (minority-preferred vote) and E8 (percent Latino). In these maps, I have added an inset map in the upper right with detail on the Fort-Worth, Arlington, and west Dallas area. The continuity of the enacted district is maintained by the inclusion of the narrow strip of VTDs to the west of Joe Pool Lake in the city of Cedar Hill.

#### Congressional District 38 (Harris County)

41. New CD 38 in the enacted plan is represented in the last row in Table 1 and in Figure 12. Because this is a new district, there are no elections under the former plan. The newly created district provides no opportunity for minority voters to elect their preferred candidate. Based on the results in the eight exogenous elections with a minority preferred candidate, had the candidate been running in this district, the candidate would have lost all elections and by an average of over 36 percentage points.

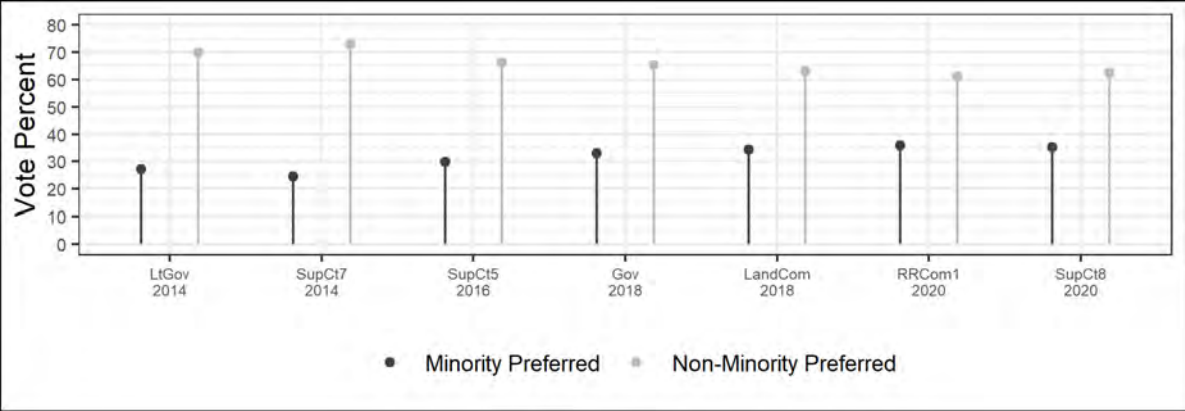


Figure 12: Congressional District 38

District	Endogenous Elections		Former Districts		All Elections		Enacted Districts	
	Margin	Win %	Margin	Win %	Margin	Win %	Margin	Win %
<b>South Texas:</b>								
31	16.83	100	6.30	57	7.62	73	-9.22	29
43	-22.43	0	-13.15	0	-15.93	9	-16.85	0
<b>El Paso and West Texas:</b>								
74	8.79	100	7.02	86	7.24	91	15.30	100
75		100	40.17	100	40.17	100	42.09	100
76		100	52.28	100	52.28	100		
77		100	32.75	100	32.75	91	52.42	100
78	26.84	100	12.95	71	17.11	82	13.23	71
79		100	31.82	100	31.82	100	30.96	100
81	-49.98	0	-52.33	0	-52.04	0	-50.36	0
<b>Bexar County:</b>								
118	14.42	100	11.96	100	12.70	100	-3.64	29

Table 4: State House Districts Opportunity District Analysis

### State House Districts 31 and 43 (South Texas)

**42.** HD 31 is represented by the first line of Table 4 and in Figure 13. Under the former plan, this was a minority opportunity district. Across all elections, the minority-preferred candidate won 73% of elections, including all endogenous elections. Ryan Guillen (Latino Democrat) ran opposed for the seat in 2014, 2016, and 2018. In 2020, he defeated his Anglo opponent by nearly 17 percentage points.<sup>22</sup> In exogenous contests with a Latino candidate, the minority preferred candidate won four of seven elections, with the minority-preferred candidate finishing a close second in the contests in 2018 for Governor, 2020 for Railroad Commissioner, and 2020 for Supreme Court. On average, the minority-preferred candidate won exogenous contests by just over 6 percentage points. Under the enacted plan, this is no longer a minority opportunity district: the average margin for the minority-preferred candidate would have been -9.2 percentage points and minority preferred candidates would have lost five of the seven exogenous elections.

**43.** The changes to HD 31 in the enacted plan are represented by the maps in Figures E9 (minority-preferred vote) and E10 (percent Latino). These average voting margins of the added and removed VTDs are summarized in Table 5. Average vote for the minority-preferred candidate in the added VTDs was 28%, in the removed VTDs, average vote for the minority preferred candidate was 42%.

**44.** HD 43 is represented by the second row of Table 4. A figure representing the election outcomes is in Appendix C. This district was not an opportunity district under the previous plan and remains not an opportunity district under the enacted plan.

### State House Districts in El Paso and West Texas

**45.** Lines 3–9 in Table 4 represent HDs 74, 75, 76, 77, 78, 79, and 81. The Figures representing these districts are in the Appendix C.<sup>23</sup>

<sup>22</sup>Guillen changed his affiliation to the Republican Party in 2021.

<sup>23</sup>As noted above, in the 2014 U.S. Senate election in HD 78 and all 2014 elections in HD 81, Latino voters were not cohesive. Because Latino voters in all other districts were cohesive in these elections, I keep them in the analysis for HDs 78 and 81. Excluding these elections makes no difference for the substance of my analysis.

VTD Status	Minority Preferred Vote %	Latino CVAP %	SSVR %	SSTO %
Added	28.35	43.97	41.17	31.96
Kept	59.68	83.01	82.00	77.79
Removed	41.50	65.92	62.01	52.03

Table 5: VTD reallocation: State House District 31

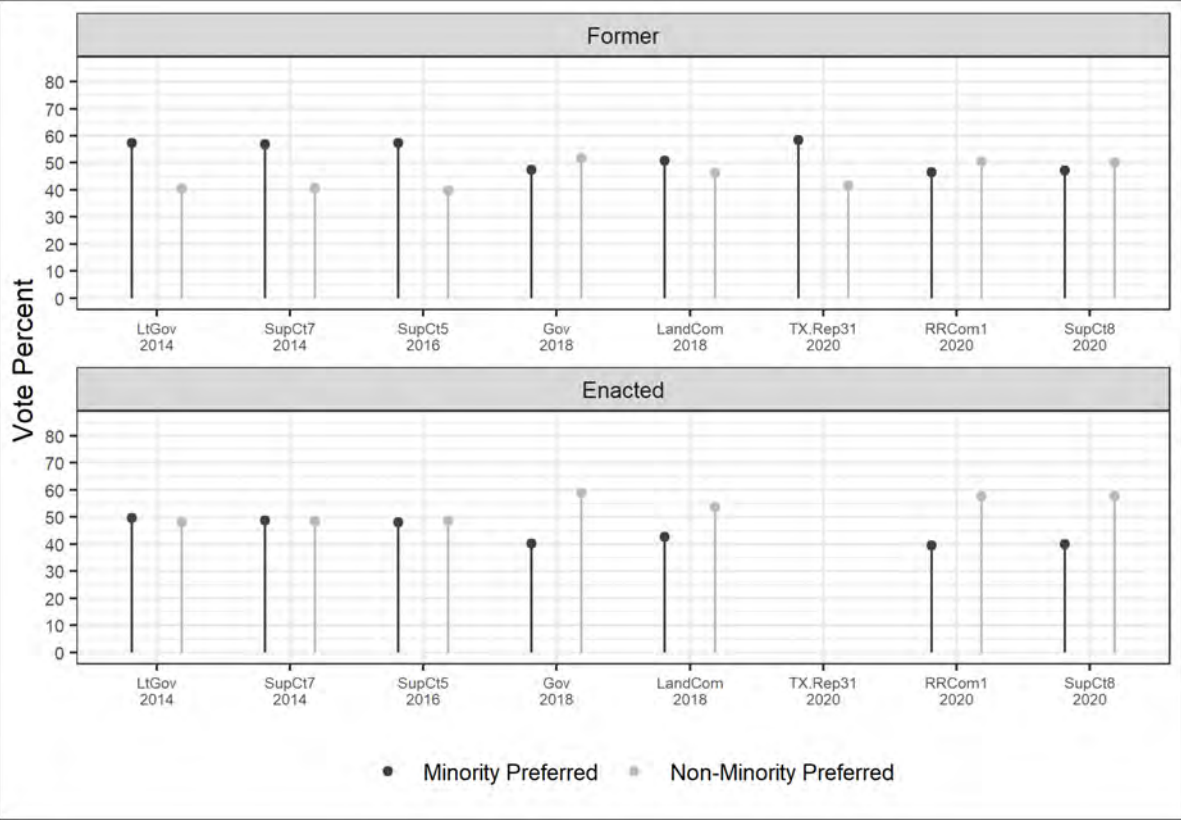


Figure 13: State House District 31

VTD Status	Minority Preferred Vote %	Latino CVAP %	SSVR %	SSTO %
Added	41.35	45.52	34.62	28.26
Kept	51.37	62.85	53.00	47.71
Removed	74.86	89.29	82.74	83.41

Table 6: VTD reallocation: State House District 118

**46.** Under the former plan HDs 74, 75, 76 77, 78 and 79 are minority opportunity districts. In the years in question, endogenous elections were only contested in HDs 74 and 78 and those contested elections were not close, with the minority preferred candidate winning by a margin of nearly 9 and 27 percentage points, respectively. In all these districts, minority-preferred candidates won more than 70% of exogenous elections. The opportunity is maintained in HDs 74, 75, 77, 78, and 79 in the enacted plan. HD 76 has been moved out of West Texas, reducing the number of opportunity districts in West Texas from six to five.

**47.** HD 81 was not an opportunity district under the former or enacted plans.

#### State House District 118 (Bexar County)

**48.** HD 118 is represented by the bottom line of Table 4 and in Figure 14. Under the former plan, HD 118 was an opportunity district, with minority-preferred candidates winning 100% of the endogenous general elections, by an average margin of 14 percentage points in contested elections. Incumbent Joe Farias (Latino Democrat) was unopposed for election in 2014. He resigned in 2015. John Lujan (Latino Republican) won a special election to replace him (this election is not included in the analysis because I only examine general elections). Tomas Uresti (Latino Democrat) defeated Lujan in the general election in 2016. Leo Pacheco (Latino Democrat) won the general election in 2018 and was unopposed in 2020. Minority preferred candidates won all seven exogenous elections under the former plan by an average margin of 12 percentage points. Under the enacted plan, HD 118 is no longer an opportunity district: minority preferred candidates are expected to lose by 3.6 percentage points and minority-preferred candidates would have lost five of seven exogenous elections.

**49.** The changes to HD 118 in the enacted plan are represented by the maps in Figures E11 (minority-preferred vote) and E12 (percent Latino). In Table 6, I summarize the average vote for the minority preferred candidate in the VTDs that were added, removed, and kept across the previous and enacted plans. On average, 75 percent of voters in the removed VTDs voted for the minority-preferred candidate. On average, 41 percent of voters in the added VTDs voted for the minority preferred candidate. Notably, the removed VTDs have nearly twice the Latino CVAP, more than twice the SSVR, and nearly three-times the SSTO of the added VTDs.



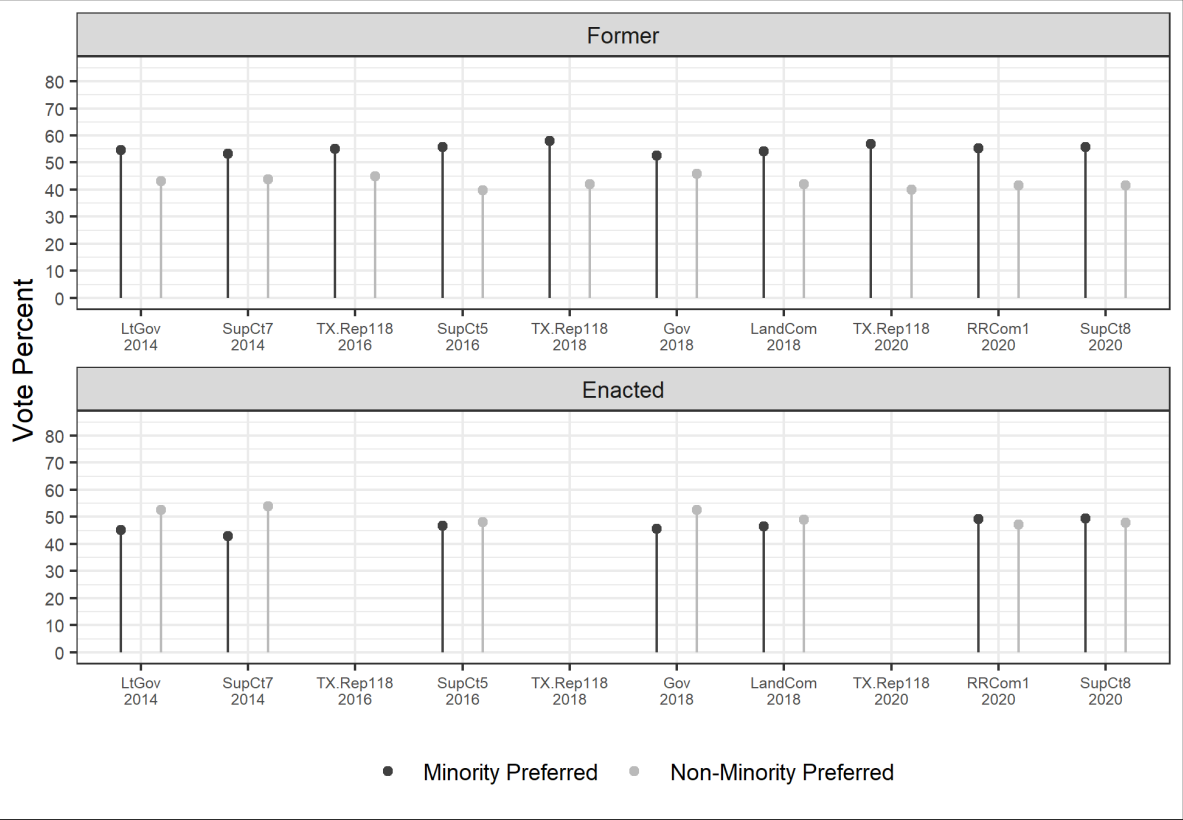


Figure 14: State House District 118

## Proportionality

**50.** Latinos are 30.5% of the Texas CVAP population in the 2016–2020 ACS data. Latinos were 25% of the Texas CVAP population in the 2006–2010 ACS data. To see if there is a relative change between plans in the proportion of CDs and HDs where Latino voters have an opportunity to elect their preferred candidates, I examined exogenous elections in CDs and HDs with at least 40% Latino CVAP. I limit this analysis to districts with 40% CVAP because districts with lower CVAP are unlikely to provide Latino voters with opportunity to elect their preferred candidate. After determining which elections had 40% Latino CVAP, I see whether Latino-preferred candidates an opportunity to win elections by examining the proportion of exogenous elections won by the Latino-preferred candidate. I list the percent Latino CVAP in CDs and HDs in tables in Appendix F.

**51.** In the former plan, based on 2010 data, there were 10 CDs with over 40% Latino CVAP (in descending order: 34, 16, 15, 28, 20, 29, 23, 27, 35, and 33). In the enacted plan, based on 2020 data, these same 10 districts have over 40% Latino CVAP, although the Latino percentage has changed in several. No additional districts are over 40% Latino CVAP in 2020.

**52.** In the former plan, based on the past performance of minority-preferred candidates in the CD, in eight of these ten districts (15, 16, 20, 28, 29, 33, 34, and 35), Latinos had an opportunity to elect their preferred candidate.<sup>24</sup> In two of these districts, 23 and 27, Latinos did not have an opportunity to elect a candidate of their choice. Therefore, the proportion of statewide opportunity districts under the former plan was 22% (8/36).

**53.** In the enacted plan, using the expected performance of minority preferred candidates in the new districts, the same eight districts remain opportunity districts, so the proportion of Latino opportunity districts statewide is now 21% (8/38). Given the increase in Latino CVAP, this represents a relative decrease in proportionality under the enacted plan: the gap between CVAP and proportion of Latino opportunity districts in the former plan was 3 percentage points, under the enacted plan, the gap is 9.5 percentage points.

**54.** Under the former plan, there were 36 HDs meeting the 40% criteria. Of these, all but HD 32, 43, and 81 gave Latino voters an opportunity to elect their preferred candidate, giving a statewide proportion of 22% (33/150) opportunity districts.

**55.** Under the enacted plan, there are still 36 HDs meeting the 40% criteria. HDs 32, 43, 81 still do not give Latinos an opportunity to elect their preferred candidate. In addition, HDs 31 and 118 no longer Latino voters an opportunity to elect their preferred candidate, bringing the total to five districts of over 40% Latino CVAP where Latino voters do not have an opportunity to elect their preferred candidate. This leaves 31 opportunity districts for 21% (31/150) opportunity districts. Given the increase in Latino CVAP, this represents a relative decrease in proportionality under the enacted plan: the gap between CVAP and proportion of Latino opportunity districts in the former plan was 3 percentage points, under the enacted plan, the gap is 9.5 percentage points.

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<sup>24</sup>Six the districts are, in fact, represented by Latinos. CD 35 has been represented by an Anglo Democrat, Lloyd Doggett, since 2013. He is now running in the newly created 37th District. A Latino, Greg Casar, has won the 2022 Democratic primary and will advance to the November general election. CD 33 has been represented by Marc Veasey, a Black Democrat, since 2013.

## Illustrative Districts

**56.** I was asked by the United States to analyze their illustrative districts for HDs 31, 74, 75, 77, 78, 79, 81, and 118 and for CDs 23 and 38. For each, I repeat the process of analysis of racial bloc voting and opportunity districts that I performed above. I use the boundaries of these districts provided to me by the United States and combine them with the same demographic and voting data used above.<sup>25</sup>

**57.** Analysis of racial bloc voting for all of these illustrative districts is in Appendix G in Tables G1–G10. In nearly all districts and relevant elections, Latinos and Anglos are each cohesive within their own group and are polarized between the groups. There are a few elections that are exceptions found in the tables. In Figure 4 above, I display the change in racial bloc voting between the enacted and illustrative CD 38. Latinos are more cohesive in the illustrative plan.

**58.** Analysis of the opportunity for minority voters to elect their preferred candidates in CDs 23 and 38 is in Table 7. Details of the expected outcomes in each exogenous election for each district are in Appendix H. Both CDs become opportunity districts in the illustrative plan. Notably, in CD 38, the minority-preferred candidate would have won every election after 2014 (see Figure H2 in Appendix H).

District	Enacted Districts Exogenous Elections		Illustrative Districts Exogenous Elections	
	Margin	Win %	Margin	Win %
<b>West Texas:</b>				
23	-11.28	0	5.21	100
<b>Harris County:</b>				
38	-34.42	0	6.31	71

Table 7: Illustrative Congressional Districts Opportunity District Analysis

**59.** Analysis of the opportunity for minority voters to elect their preferred candidates in HDs is in Table 8. Details of the expected outcomes in each exogenous election for each district are in Appendix H. All HDs become opportunity districts in the illustrative plan.

District	Enacted Districts Exogenous Elections		Illustrative Districts Exogenous Elections	
	Margin	Win %	Margin	Win %
<b>South Texas:</b>				
31	-9.22	29	14.80	100
<b>El Paso and West Texas:</b>				
74	15.30	100	1.13	57
75	42.09	100	39.83	100
77	52.42	100	50.94	100
78	13.23	71	13.92	100
79	30.96	100	26.42	100
81	-50.36	0	2.36	71
<b>Bexar County:</b>				
118	-3.64	29	4.65	86

Table 8: Illustrative State House Districts Opportunity District Analysis

<sup>25</sup>In some cases, these illustrative districts include a small number of split VTDs, where part of the VTD was assigned to one district and part to another. In order to analyze these districts, the data from these districts must be either 1) assigned to one or the other of the districts or 2) split through a process of spatial interpolation and assigned to both districts. Because spatial interpolation proved inconsequential in my analysis above, I decided to assign these VTDs to the district with which a VTD has the greatest spatial overlap.

## Relationship between socioeconomic factors and voter turnout

**60.** There is strong evidence that voter turnout is correlated with socioeconomic status. Americans living in poverty are far less likely to participate in the political process, including less likely to vote, than those with more resources (Wolfinger and Rosenstone 1980; Verba, Schlozman, and Brady 1995; Schlozman, Verba, and Brady 2012; Blais 2006).<sup>26</sup> Approximately half of American adults in the lowest income quintile usually vote in presidential elections, compared with nearly 80% of Americans in the highest quintile (Leighley and Nagler 2013).<sup>27</sup> These patterns are robust across time and place in the United States. Because one cannot experiment on socioeconomic status in order to precisely understand why this relationship exists, the causal effect and pathways of poverty on low voter participation are poorly understood. It could be because of a lack of education generally and civic education in particular (Ojeda 2018, Sondheimer and Green 2010), less perceived efficacy in the system (Aberbach and Walker 1970), less time and resources to pay the opportunity costs associated with voting (Verba, Schlossman, and Brady 1995), or less attention from campaigns (Enos, Fowler, and Vavreck 2014).<sup>28</sup>

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<sup>26</sup>

Wolfinger, Raymond E., and Steven J. Rosenstone. *Who votes?*. Yale University Press, 1980.

Verba, Sidney, Kay L. Schlozman, and Henry E. Brady. 1995. *Voice and Equality: Civic Volunteerism in American Politics*. Cambridge, MA: Harvard University Press.

Schlozman, Kay L., Sidney Verba, and Henry E. Brady. 2012. *The Unheavenly Chorus: Unequal Political Voice and the Broken Promise of American Democracy*. Princeton, NJ: Princeton University Press.

Blais, André. "What affects voter turnout?." *Annu. Rev. Polit. Sci.* 9 (2006): 111-125.

<sup>27</sup> Leighley, Jan E., and Jonathan Nagler. 2013. *Who Votes Now? Demographics, Issues, Inequality, and Turnout in the United States*. Princeton University Press.

<sup>28</sup>

Aberbach, Joel D., and Jack L. Walker. "Political trust and racial ideology." *American political science review* 64.4 (1970): 1199-1219.

Ojeda, Christopher. 2018. "The Two Income-Participation Gaps." *American Journal of Political Science* 62(4): 813-829

Sondheimer, Rachel Milstein, and Donald P. Green. "Using experiments to estimate the effects of education on voter turnout." *American Journal of Political Science* 54.1 (2010): 174-189.

Enos, Ryan D., Anthony Fowler, and Lynn Vavreck. "Increasing inequality: The effect of GOTV mobilization on the composition of the electorate." *The Journal of Politics* 76.1 (2014): 273-288.

## A Appendix: Full EI Results

The tables below are of EI estimates for Anglo, Latino, and Black voters. Estimates were also produced for a category of “Other”, but those are not shown. Cell entries are for the Democratic vote share, with 95% confidence intervals in parentheses. The party and race for the two major-party candidates are listed next to the office (D = Democrat, R = Republican, A = Anglo, L = Latino, B = Black). Estimates for both the former and enacted districts are shown.

### Congressional District 23 (West Texas)

Office	Year	Former		Enactd	
		Latinos	Anglos	Latinos	Anglos
Land Comm (AD-LR)	2014	82 (78, 86)	12 (9, 15)	76 (71, 80)	13 (11, 16)
Lt. Governor (LD-AR)	2014	84 (80, 88)	18 (14, 21)	81 (76, 85)	18 (15, 21)
Sup Ct 7 (LD-AR)	2014	86 (83, 89)	15 (13, 18)	84 (79, 88)	16 (13, 19)
U.S. Rep 23 (LD-BR)	2014	86 (83, 89)	23 (19, 26)	-	-
Sup Ct 5 (LD-AR)	2016	85 (82, 87)	11 (8, 14)	83 (80, 86)	13 (11, 15)
Sup Ct 9 (AD-LR)	2016	78 (75, 80)	12 (9, 15)	74 (71, 77)	12 (9, 15)
U.S. Rep 23 (LD-BR)	2016	83 (81, 86)	13 (10, 16)	-	-
Governor (LD-AR)	2018	77 (73, 80)	14 (11, 17)	74 (70, 78)	15 (13, 19)
Land Comm (LD-LR)	2018	80 (77, 83)	13 (11, 16)	77 (73, 81)	15 (12, 18)
U.S. Rep 23 (LD-BR)	2018	82 (79, 85)	16 (13, 20)	-	-
U.S. Sen (AD-LR)	2018	83 (80, 85)	18 (15, 22)	80 (77, 84)	20 (17, 24)
RR Comm 1 (LD-AR)	2020	74 (71, 77)	19 (15, 22)	71 (68, 74)	20 (17, 24)
Sup Ct 8 (LD-AR)	2020	76 (74, 79)	17 (14, 20)	73 (69, 76)	20 (16, 23)
U.S. Rep 23 (LD-LR)	2020	73 (70, 76)	17 (14, 20)	-	-
Avg.		81	16	77	16

Table A1: EI CVAP: CD 23

## Congressional Districts in the Dallas-Fort Worth Metroplex

Office	Year	Former			Enacted		
		Latinos	Blacks	Anglos	Latinos	Blacks	Anglos
Land Comm (AD-LR)	2014	72 (54, 83)	73 (58, 85)	25 (22, 28)	61 (44, 78)	65 (46, 81)	21 (19, 23)
Lt. Governor (LD-AR)	2014	69 (54, 82)	66 (51, 81)	32 (29, 34)	55 (38, 77)	57 (40, 73)	29 (28, 30)
RR Comm 3 (BD-AR)	2014	72 (58, 83)	66 (53, 79)	27 (24, 30)	61 (45, 77)	65 (50, 79)	23 (21, 25)
Sup Ct 7 (LD-AR)	2014	73 (55, 85)	63 (46, 77)	28 (25, 31)	67 (53, 81)	66 (44, 80)	24 (22, 25)
RR Comm 1 (AD-BR)	2016	77 (64, 86)	74 (60, 86)	29 (25, 33)	53 (38, 71)	65 (48, 80)	26 (24, 28)
Sup Ct 5 (LD-AR)	2016	76 (66, 86)	72 (60, 84)	31 (27, 34)	61 (46, 75)	65 (46, 83)	27 (25, 29)
Sup Ct 9 (AD-LR)	2016	76 (64, 85)	72 (57, 84)	28 (23, 33)	63 (45, 77)	62 (42, 80)	24 (22, 27)
CCA 7 (BD-AR)	2018	78 (64, 86)	69 (53, 81)	37 (33, 42)	64 (50, 76)	74 (60, 86)	33 (31, 34)
CCA Pres Judge (BD-AR)	2018	82 (73, 89)	71 (57, 85)	36 (32, 40)	56 (43, 70)	61 (40, 77)	34 (33, 36)
Comptroller (BD-AR)	2018	79 (70, 86)	70 (53, 85)	35 (31, 38)	67 (55, 78)	61 (39, 79)	32 (30, 33)
Governor (LD-AR)	2018	81 (71, 87)	72 (57, 83)	32 (27, 36)	65 (50, 81)	59 (37, 81)	30 (28, 32)
Land Comm (LD-LR)	2018	82 (73, 89)	67 (53, 80)	31 (27, 35)	66 (53, 79)	69 (53, 83)	30 (27, 32)
U.S. Sen (AD-LR)	2018	80 (70, 87)	62 (44, 79)	43 (40, 46)	62 (49, 78)	60 (41, 77)	40 (38, 41)
CCA 3 (BD-AR)	2020	74 (65, 83)	62 (48, 75)	38 (35, 41)	58 (47, 69)	59 (45, 72)	33 (32, 35)
RR Comm 1 (LD-AR)	2020	75 (64, 84)	62 (48, 74)	38 (33, 41)	58 (48, 68)	59 (43, 75)	35 (33, 37)
Sup Ct 7 (BD-AR)	2020	72 (62, 82)	68 (54, 81)	38 (35, 40)	59 (48, 68)	58 (43, 71)	33 (31, 34)
Sup Ct 8 (LD-AR)	2020	77 (68, 87)	64 (50, 78)	37 (33, 40)	63 (48, 76)	66 (52, 79)	32 (30, 35)
U.S. Rep 24 (LD-AR)	2020	72 (63, 80)	62 (51, 73)	37 (35, 40)	-	-	-
Avg.		76	68	33	61	63	30

Table A2: EI CVAP: CD 24

Office	Year	Former			Enacted		
		Latinos	Blacks	Anglos	Latinos	Blacks	Anglos
Land Comm (AD-LR)	2014	67 (53, 81)	89 (84, 93)	11 (8, 13)	66 (50, 78)	83 (76, 89)	9 (6, 11)
Lt. Governor (LD-AR)	2014	67 (52, 81)	88 (83, 92)	15 (12, 18)	72 (60, 82)	83 (75, 89)	9 (7, 12)
RR Comm 3 (BD-AR)	2014	65 (48, 78)	88 (84, 92)	13 (10, 16)	72 (60, 82)	81 (73, 88)	9 (7, 12)
Sup Ct 7 (LD-AR)	2014	68 (55, 80)	88 (83, 92)	12 (9, 15)	72 (59, 82)	81 (73, 88)	8 (6, 11)
RR Comm 1 (AD-BR)	2016	76 (62, 86)	90 (86, 93)	12 (10, 15)	84 (76, 90)	83 (76, 89)	7 (5, 9)
Sup Ct 5 (LD-AR)	2016	77 (64, 86)	91 (88, 94)	12 (10, 15)	84 (79, 89)	83 (75, 88)	6 (4, 8)
Sup Ct 9 (AD-LR)	2016	76 (63, 86)	91 (87, 94)	12 (9, 14)	86 (79, 91)	82 (76, 88)	6 (5, 8)
U.S. Rep 6 (BD-AR)	2016	75 (62, 86)	91 (87, 94)	12 (9, 14)	-	-	-
CCA 7 (BD-AR)	2018	74 (61, 85)	94 (91, 96)	18 (15, 20)	87 (81, 91)	87 (82, 92)	7 (5, 9)
CCA Pres Judge (BD-AR)	2018	76 (61, 86)	94 (91, 96)	17 (15, 20)	87 (80, 91)	87 (81, 92)	7 (5, 9)
Comptroller (BD-AR)	2018	75 (62, 86)	94 (91, 96)	16 (14, 19)	87 (81, 91)	89 (83, 93)	6 (4, 8)
Governor (LD-AR)	2018	74 (59, 85)	93 (91, 96)	15 (12, 17)	86 (80, 90)	86 (79, 91)	5 (4, 7)
Land Comm (LD-LR)	2018	77 (61, 87)	94 (91, 96)	15 (12, 17)	87 (82, 91)	87 (82, 92)	5 (4, 7)
U.S. Rep 6 (LD-AR)	2018	76 (59, 87)	95 (92, 97)	18 (15, 21)	-	-	-
U.S. Sen (AD-LR)	2018	73 (59, 85)	94 (91, 96)	22 (19, 25)	87 (82, 91)	89 (84, 93)	8 (6, 11)
CCA 3 (BD-AR)	2020	72 (57, 84)	94 (92, 96)	20 (17, 22)	88 (84, 92)	90 (85, 93)	8 (6, 10)
RR Comm 1 (LD-AR)	2020	73 (59, 83)	94 (92, 96)	18 (15, 21)	89 (84, 92)	89 (85, 93)	7 (5, 9)
Sup Ct 7 (BD-AR)	2020	75 (62, 86)	94 (92, 96)	19 (16, 22)	89 (83, 93)	89 (85, 93)	8 (6, 10)
Sup Ct 8 (LD-AR)	2020	70 (46, 84)	94 (92, 96)	18 (16, 21)	88 (83, 92)	89 (84, 93)	7 (5, 10)
Avg.		73	92	15	83	86	7

Table A3: EI CVAP: CD 6



Office	Year	Latinos	Blacks	Anglos
Land Comm (AD-LR)	2014	82 (76, 86)	90 (87, 92)	18 (17, 21)
Lt. Governor (LD-AR)	2014	82 (77, 86)	90 (87, 92)	24 (22, 25)
RR Comm 3 (BD-AR)	2014	84 (78, 88)	90 (87, 92)	21 (19, 22)
Sup Ct 7 (LD-AR)	2014	84 (79, 88)	89 (86, 92)	21 (19, 24)
RR Comm 1 (AD-BR)	2016	88 (85, 91)	92 (89, 94)	17 (15, 19)
Sup Ct 5 (LD-AR)	2016	89 (86, 92)	91 (89, 93)	18 (16, 20)
Sup Ct 9 (AD-LR)	2016	87 (83, 90)	91 (88, 93)	17 (15, 19)
CCA 7 (BD-AR)	2018	88 (85, 91)	92 (89, 94)	26 (24, 27)
CCA Pres Judge (BD-AR)	2018	89 (86, 92)	91 (89, 93)	26 (24, 27)
Comptroller (BD-AR)	2018	89 (85, 91)	91 (89, 94)	24 (23, 26)
Governor (LD-AR)	2018	88 (85, 91)	91 (88, 93)	22 (20, 24)
Land Comm (LD-LR)	2018	89 (86, 91)	91 (89, 93)	22 (21, 24)
U.S. Sen (AD-LR)	2018	88 (84, 91)	91 (89, 93)	31 (29, 33)
CCA 3 (BD-AR)	2020	84 (79, 88)	91 (89, 93)	27 (26, 29)
RR Comm 1 (LD-AR)	2020	83 (78, 86)	90 (88, 93)	26 (24, 29)
Sup Ct 7 (BD-AR)	2020	84 (80, 88)	92 (90, 93)	26 (25, 28)
Sup Ct 8 (LD-AR)	2020	85 (81, 89)	91 (89, 93)	26 (24, 28)
Avg.		86	91	23

Table A4: EI CVAP: Dallas and Tarrant Counties pooled

Office	Year	Former			Enacted		
		Latinos	Blacks	Anglos	Latinos	Blacks	Anglos
Land Comm (AD-LR)	2014	75 (62, 83)	87 (83, 90)	19 (17, 22)	62 (47, 77)	81 (73, 87)	16 (14, 18)
Lt. Governor (LD-AR)	2014	73 (63, 82)	86 (81, 89)	25 (23, 27)	68 (56, 79)	77 (68, 84)	22 (21, 24)
RR Comm 3 (BD-AR)	2014	74 (62, 83)	88 (83, 91)	21 (18, 24)	68 (57, 78)	80 (73, 86)	18 (16, 20)
Sup Ct 7 (LD-AR)	2014	76 (66, 84)	87 (83, 91)	21 (19, 23)	71 (61, 80)	78 (68, 85)	18 (16, 20)
RR Comm 1 (AD-BR)	2016	81 (71, 87)	88 (84, 91)	18 (15, 21)	77 (69, 84)	77 (69, 83)	17 (15, 19)
Sup Ct 5 (LD-AR)	2016	83 (76, 88)	88 (84, 91)	19 (17, 21)	77 (67, 83)	77 (68, 84)	18 (16, 19)
Sup Ct 9 (AD-LR)	2016	82 (76, 88)	89 (85, 92)	17 (15, 20)	79 (72, 85)	80 (72, 86)	16 (15, 18)
CCA 7 (BD-AR)	2018	79 (70, 86)	91 (88, 94)	25 (23, 28)	77 (65, 84)	80 (71, 87)	23 (21, 25)
CCA Pres Judge (BD-AR)	2018	81 (74, 86)	91 (88, 94)	26 (23, 28)	78 (72, 85)	81 (74, 87)	23 (22, 25)
Comptroller (BD-AR)	2018	79 (71, 86)	91 (87, 93)	24 (22, 26)	76 (67, 84)	80 (72, 87)	21 (20, 23)
Governor (LD-AR)	2018	80 (73, 85)	90 (86, 93)	22 (19, 24)	78 (69, 85)	79 (70, 86)	20 (18, 22)
Land Comm (LD-LR)	2018	81 (74, 86)	90 (86, 93)	22 (20, 24)	79 (70, 85)	78 (70, 84)	20 (19, 22)
U.S. Sen (AD-LR)	2018	78 (69, 86)	90 (86, 93)	32 (29, 34)	73 (65, 81)	76 (66, 83)	29 (27, 30)
CCA 3 (BD-AR)	2020	71 (62, 80)	89 (86, 92)	28 (26, 30)	63 (56, 70)	78 (70, 84)	26 (24, 27)
RR Comm 1 (LD-AR)	2020	70 (62, 79)	90 (86, 93)	28 (26, 29)	71 (64, 78)	68 (61, 75)	26 (24, 27)
Sup Ct 7 (BD-AR)	2020	72 (65, 80)	89 (86, 92)	28 (25, 30)	64 (56, 72)	78 (70, 84)	25 (24, 26)
Sup Ct 8 (LD-AR)	2020	71 (63, 78)	89 (85, 92)	28 (26, 30)	64 (57, 72)	76 (68, 82)	25 (23, 26)
Avg.		77	89	24	72	78	21

Table A5: EI CVAP: CDs 24 and 6 pooled

**Congressional District 38 (Harris County)**

Office	Year	Latinos	Anglos
Land Comm (AD-LR)	2014	0.54 (0.33, 0.76)	0.08 (0.05, 0.12)
Lt. Governor (LD-AR)	2014	0.53 (0.36, 0.72)	0.21 (0.18, 0.25)
Sup Ct 7 (LD-AR)	2014	0.52 (0.39, 0.67)	0.15 (0.11, 0.19)
Sup Ct 5 (LD-AR)	2016	0.77 (0.57, 0.89)	0.15 (0.11, 0.18)
Sup Ct 9 (AD-LR)	2016	0.67 (0.32, 0.92)	0.12 (0.07, 0.17)
Governor (LD-AR)	2018	0.7 (0.49, 0.85)	0.19 (0.16, 0.22)
Land Comm (LD-LR)	2018	0.75 (0.6, 0.87)	0.22 (0.18, 0.25)
U.S. Sen (AD-LR)	2018	0.66 (0.47, 0.82)	0.29 (0.25, 0.33)
RR Comm 1 (LD-AR)	2020	0.68 (0.47, 0.84)	0.24 (0.21, 0.27)
Sup Ct 8 (LD-AR)	2020	0.78 (0.61, 0.89)	0.22 (0.19, 0.25)
Avg.		0.66	0.19

Table A6: EI CVAP: CD 38

Office	Year	Latinos	Anglos
Land Comm (AD-LR)	2014	0.82 (0.78, 0.85)	0.17 (0.16, 0.19)
Lt. Governor (LD-AR)	2014	0.81 (0.77, 0.85)	0.25 (0.24, 0.26)
Sup Ct 7 (LD-AR)	2014	0.83 (0.8, 0.86)	0.21 (0.2, 0.23)
Sup Ct 5 (LD-AR)	2016	0.91 (0.89, 0.93)	0.18 (0.17, 0.2)
Sup Ct 9 (AD-LR)	2016	0.87 (0.84, 0.89)	0.15 (0.13, 0.16)
Governor (LD-AR)	2018	0.87 (0.84, 0.89)	0.24 (0.22, 0.26)
Land Comm (LD-LR)	2018	0.89 (0.87, 0.91)	0.25 (0.24, 0.27)
U.S. Sen (AD-LR)	2018	0.9 (0.88, 0.92)	0.32 (0.31, 0.34)
RR Comm 1 (LD-AR)	2020	0.82 (0.79, 0.85)	0.26 (0.24, 0.27)
Sup Ct 8 (LD-AR)	2020	0.83 (0.8, 0.85)	0.24 (0.22, 0.27)
Avg.		0.85	0.23

Table A7: EI CVAP: Harris County

## State House Districts 31 and 43 (South Texas)

Office	Year	Former		Enacted	
		Latinos	Anglos	Latinos	Anglos
Land Comm (AD-LR)	2014	81 (76, 85)	9 (5, 14)	81 (76, 85)	7 (3, 10)
Lt. Governor (LD-AR)	2014	89 (85, 92)	8 (4, 13)	88 (83, 92)	8 (4, 12)
Sup Ct 7 (LD-AR)	2014	90 (86, 93)	8 (4, 14)	89 (84, 92)	7 (4, 11)
Sup Ct 5 (LD-AR)	2016	85 (82, 88)	9 (5, 14)	84 (80, 87)	6 (3, 10)
Sup Ct 9 (AD-LR)	2016	75 (71, 79)	10 (6, 15)	74 (70, 78)	7 (4, 11)
Governor (LD-AR)	2018	67 (63, 70)	8 (4, 13)	68 (64, 72)	6 (3, 9)
Land Comm (LD-LR)	2018	74 (70, 78)	9 (5, 15)	75 (71, 79)	6 (3, 9)
U.S. Sen (AD-LR)	2018	76 (72, 80)	10 (6, 15)	76 (72, 80)	6 (3, 10)
RR Comm 1 (LD-AR)	2020	69 (65, 72)	8 (4, 12)	68 (64, 71)	6 (3, 9)
State Rep 31 (LD-AR)	2020	82 (79, 85)	7 (4, 11)	-	-
Sup Ct 8 (LD-AR)	2020	70 (67, 73)	7 (4, 12)	69 (66, 72)	5 (2, 8)
Avg.		78	8	77	6

Table A8: EI CVAP: HD 31

Office	Year	Former		Enacted	
		Latinos	Anglos	Latinos	Anglos
Land Comm (AD-LR)	2014	82 (73, 89)	7 (4, 13)	84 (76, 90)	9 (5, 15)
Lt. Governor (LD-AR)	2014	88 (81, 93)	10 (5, 16)	89 (85, 94)	11 (6, 16)
State Rep 43 (LD-LR)	2014	67 (58, 75)	12 (7, 18)	-	-
Sup Ct 7 (LD-AR)	2014	90 (85, 94)	9 (5, 15)	90 (85, 94)	11 (7, 17)
State Rep 43 (LD-LR)	2016	64 (58, 69)	7 (4, 11)	-	-
Sup Ct 5 (LD-AR)	2016	89 (84, 93)	6 (3, 10)	90 (85, 93)	6 (3, 10)
Sup Ct 9 (AD-LR)	2016	77 (70, 82)	6 (3, 11)	79 (73, 83)	7 (4, 11)
Governor (LD-AR)	2018	69 (63, 75)	6 (3, 11)	72 (66, 77)	6 (3, 9)
Land Comm (LD-LR)	2018	77 (70, 84)	7 (4, 12)	81 (75, 86)	6 (3, 10)
State Rep 43 (LD-LR)	2018	66 (61, 72)	9 (5, 14)	-	-
U.S. Sen (AD-LR)	2018	80 (74, 86)	8 (4, 13)	82 (77, 87)	8 (5, 13)
RR Comm 1 (LD-AR)	2020	71 (66, 76)	8 (4, 12)	74 (70, 78)	8 (5, 11)
Sup Ct 8 (LD-AR)	2020	73 (68, 78)	7 (4, 11)	76 (71, 80)	7 (4, 10)
Avg.		76	8	82	8

Table A9: EI CVAP: HD 43

Office	Year	Latinos	Anglos
Land Comm (AD-LR)	2014	59 (28, 85)	11 (5, 19)
Lt. Governor (LD-AR)	2014	65 (39, 87)	13 (5, 22)
Sup Ct 7 (LD-AR)	2014	63 (36, 86)	11 (5, 19)
Sup Ct 5 (LD-AR)	2016	77 (58, 92)	8 (3, 14)
Sup Ct 9 (AD-LR)	2016	76 (56, 91)	7 (3, 13)
Governor (LD-AR)	2018	72 (48, 89)	5 (2, 10)
Land Comm (LD-LR)	2018	75 (52, 91)	6 (2, 13)
U.S. Sen (AD-LR)	2018	85 (65, 96)	7 (3, 14)
RR Comm 1 (LD-AR)	2020	74 (57, 90)	6 (2, 12)
Sup Ct 8 (LD-AR)	2020	75 (53, 91)	7 (2, 13)
Avg.		72	8

Table A10: EI CVAP: Wilson and Karnes counties pooled

## State House Districts in El Paso and West Texas

Office	Year	Former		Enacted	
		Latinos	Anglos	Latinos	Anglos
Land Comm (AD-LR)	2014	72 (65, 79)	27 (20, 34)	72 (64, 78)	32 (24, 41)
Lt. Governor (LD-AR)	2014	80 (73, 86)	26 (19, 34)	79 (73, 86)	32 (24, 40)
Sup Ct 7 (LD-AR)	2014	82 (76, 88)	28 (19, 36)	81 (74, 86)	33 (25, 41)
Sup Ct 5 (LD-AR)	2016	79 (75, 83)	22 (15, 31)	81 (77, 84)	24 (16, 34)
Sup Ct 9 (AD-LR)	2016	69 (65, 74)	20 (13, 29)	71 (67, 75)	23 (14, 32)
Governor (LD-AR)	2018	68 (63, 73)	24 (17, 31)	70 (65, 74)	27 (18, 36)
Land Comm (LD-LR)	2018	70 (64, 74)	26 (19, 34)	73 (68, 77)	29 (21, 37)
U.S. Sen (AD-LR)	2018	76 (71, 79)	24 (17, 32)	78 (73, 82)	29 (22, 37)
RR Comm 1 (LD-AR)	2020	62 (58, 66)	25 (17, 33)	65 (61, 68)	28 (20, 39)
State Rep 74 (LD-LR)	2020	69 (66, 73)	26 (19, 33)	-	-
Sup Ct 8 (LD-AR)	2020	64 (59, 69)	25 (16, 33)	67 (63, 71)	29 (21, 37)
Avg.		72	25	74	28

Table A11: EI CVAP: HD 74

Office	Year	Former		Enacted	
		Latinos	Anglos	Latinos	Anglos
Land Comm (AD-LR)	2014	82 (74, 89)	36 (15, 64)	80 (73, 87)	47 (22, 71)
Lt. Governor (LD-AR)	2014	80 (71, 88)	41 (17, 73)	82 (76, 89)	30 (11, 55)
Sup Ct 7 (LD-AR)	2014	83 (75, 91)	37 (18, 60)	83 (76, 90)	35 (13, 59)
Sup Ct 5 (LD-AR)	2016	84 (79, 89)	34 (13, 64)	85 (81, 89)	34 (15, 61)
Sup Ct 9 (AD-LR)	2016	77 (73, 82)	37 (16, 67)	77 (74, 83)	44 (13, 75)
Governor (LD-AR)	2018	79 (74, 84)	34 (11, 63)	78 (73, 83)	41 (14, 77)
Land Comm (LD-LR)	2018	80 (75, 84)	41 (16, 70)	80 (75, 84)	44 (20, 74)
U.S. Sen (AD-LR)	2018	87 (82, 91)	34 (14, 58)	85 (80, 91)	42 (14, 75)
RR Comm 1 (LD-AR)	2020	74 (69, 78)	36 (13, 71)	72 (68, 77)	42 (11, 74)
Sup Ct 8 (LD-AR)	2020	76 (71, 80)	35 (12, 66)	75 (71, 79)	39 (15, 61)
Avg.		80	36	80	40

Table A12: EI CVAP: HD 75

Office	Year	Former	
		Latinos	Anglos
Land Comm (AD-LR)	2014	93 (87, 97)	25 (11, 42)
Lt. Governor (LD-AR)	2014	93 (88, 96)	28 (12, 50)
Sup Ct 7 (LD-AR)	2014	93 (88, 96)	30 (13, 51)
Sup Ct 5 (LD-AR)	2016	90 (86, 92)	23 (8, 43)
Sup Ct 9 (AD-LR)	2016	83 (80, 86)	27 (10, 53)
Governor (LD-AR)	2018	86 (82, 89)	26 (8, 51)
Land Comm (LD-LR)	2018	88 (84, 92)	24 (10, 47)
U.S. Sen (AD-LR)	2018	92 (89, 94)	28 (12, 48)
RR Comm 1 (LD-AR)	2020	80 (77, 83)	32 (12, 56)
Sup Ct 8 (LD-AR)	2020	83 (80, 85)	29 (12, 52)
Avg.		88	27

Table A13: EI CVAP: HD 76

Office	Year	Former		Enacted	
		Latinos	Anglos	Latinos	Anglos
Land Comm (AD-LR)	2014	84 (72, 93)	37 (20, 53)	86 (81, 91)	38 (21, 57)
Lt. Governor (LD-AR)	2014	83 (69, 92)	39 (20, 58)	87 (82, 92)	40 (24, 60)
Sup Ct 7 (LD-AR)	2014	82 (70, 92)	39 (22, 58)	91 (86, 95)	34 (18, 51)
Sup Ct 5 (LD-AR)	2016	90 (84, 94)	27 (13, 44)	87 (85, 90)	34 (15, 58)
Sup Ct 9 (AD-LR)	2016	85 (78, 90)	26 (11, 45)	82 (80, 84)	32 (13, 54)
Governor (LD-AR)	2018	89 (81, 95)	22 (9, 44)	84 (81, 86)	41 (23, 62)
Land Comm (LD-LR)	2018	88 (77, 94)	30 (13, 52)	85 (83, 88)	37 (19, 57)
U.S. Sen (AD-LR)	2018	91 (84, 95)	40 (22, 61)	89 (86, 91)	52 (34, 71)
RR Comm 1 (LD-AR)	2020	84 (75, 90)	30 (11, 56)	79 (77, 82)	44 (23, 69)
Sup Ct 8 (LD-AR)	2020	86 (79, 92)	32 (14, 49)	82 (80, 85)	42 (20, 62)
Avg.		86	32	85	40

Table A14: EI CVAP: HD 77



Office	Year	Former		Enacted	
		Latinos	Anglos	Latinos	Anglos
Land Comm (AD-LR)	2014	64 (43, 81)	38 (23, 52)	70 (48, 86)	39 (27, 50)
Lt. Governor (LD-AR)	2014	70 (47, 87)	35 (16, 50)	70 (49, 85)	38 (23, 50)
Sup Ct 7 (LD-AR)	2014	70 (48, 89)	37 (21, 51)	71 (43, 87)	38 (23, 52)
State Rep 78 (LD-AR)	2016	84 (71, 93)	31 (13, 57)	-	-
Sup Ct 5 (LD-AR)	2016	85 (68, 93)	23 (9, 48)	89 (80, 95)	20 (9, 37)
Sup Ct 9 (AD-LR)	2016	83 (69, 92)	17 (6, 37)	85 (74, 93)	19 (8, 35)
Governor (LD-AR)	2018	85 (72, 92)	23 (11, 44)	88 (80, 94)	20 (8, 34)
Land Comm (LD-LR)	2018	82 (70, 92)	27 (11, 45)	89 (79, 94)	22 (9, 40)
State Rep 78 (LD-AR)	2018	86 (74, 93)	34 (14, 55)	-	-
U.S. Sen (AD-LR)	2018	88 (71, 95)	33 (15, 62)	89 (80, 94)	39 (24, 55)
RR Comm 1 (LD-AR)	2020	80 (66, 88)	25 (8, 50)	83 (75, 90)	24 (11, 36)
State Rep 78 (LD-AR)	2020	80 (71, 88)	34 (15, 51)	-	-
Sup Ct 8 (LD-AR)	2020	79 (68, 87)	32 (15, 53)	83 (70, 91)	27 (13, 47)
Avg.		80	30	82	29

Table A15: EI CVAP: HD 78

Office	Year	Former		Enacted	
		Latinos	Anglos	Latinos	Anglos
Land Comm (AD-LR)	2014	70 (43, 86)	47 (20, 80)	76 (61, 86)	37 (16, 64)
Lt. Governor (LD-AR)	2014	77 (65, 88)	23 (8, 48)	80 (65, 91)	31 (13, 59)
Sup Ct 7 (LD-AR)	2014	72 (51, 88)	47 (22, 74)	77 (65, 87)	38 (14, 60)
Sup Ct 5 (LD-AR)	2016	91 (80, 96)	15 (6, 28)	87 (79, 92)	19 (9, 40)
Sup Ct 9 (AD-LR)	2016	73 (63, 86)	42 (10, 85)	75 (67, 82)	30 (13, 63)
Governor (LD-AR)	2018	79 (71, 90)	26 (7, 49)	81 (74, 87)	23 (11, 40)
Land Comm (LD-LR)	2018	84 (74, 93)	23 (7, 48)	86 (76, 92)	19 (8, 42)
U.S. Sen (AD-LR)	2018	94 (88, 98)	15 (7, 29)	92 (87, 96)	19 (9, 34)
RR Comm 1 (LD-AR)	2020	75 (70, 81)	29 (13, 51)	76 (68, 83)	31 (10, 65)
Sup Ct 8 (LD-AR)	2020	77 (71, 84)	31 (12, 58)	79 (73, 85)	25 (10, 45)
Avg.		79	30	81	27

Table A16: EI CVAP: HD 79

Office	Year	Former		Enacted	
		Latinos	Anglos	Latinos	Anglos
Land Comm (AD-LR)	2014	37 (21, 57)	5 (3, 8)	42 (25, 61)	6 (4, 9)
Lt. Governor (LD-AR)	2014	36 (19, 56)	5 (3, 7)	40 (21, 59)	5 (3, 8)
Sup Ct 7 (LD-AR)	2014	42 (24, 64)	6 (3, 9)	42 (24, 62)	6 (4, 10)
Sup Ct 5 (LD-AR)	2016	78 (65, 88)	6 (3, 10)	80 (66, 90)	8 (3, 13)
Sup Ct 9 (AD-LR)	2016	73 (57, 86)	6 (3, 12)	77 (59, 89)	6 (2, 13)
Governor (LD-AR)	2018	69 (51, 83)	7 (3, 12)	72 (54, 87)	8 (4, 14)
Land Comm (LD-LR)	2018	74 (57, 88)	6 (3, 12)	66 (47, 83)	10 (5, 16)
State Rep 81 (LD-AR)	2018	67 (50, 83)	6 (3, 12)	-	-
U.S. Sen (AD-LR)	2018	74 (55, 87)	9 (4, 14)	74 (55, 89)	11 (5, 17)
RR Comm 1 (LD-AR)	2020	63 (42, 77)	6 (3, 11)	66 (48, 81)	7 (3, 12)
Sup Ct 8 (LD-AR)	2020	64 (48, 80)	6 (2, 12)	67 (51, 81)	7 (3, 13)
Avg.		62	6	63	7

Table A17: EI CVAP: HD 81

Office	Year	Former		Enacted	
		Latinos	Anglos	Latinos	Anglos
Land Comm (AD-LR)	2014	83 (79, 86)	17 (13, 20)	84 (80, 86)	16 (13, 21)
Lt. Governor (LD-AR)	2014	86 (83, 89)	17 (14, 20)	86 (83, 89)	18 (14, 22)
Sup Ct 7 (LD-AR)	2014	86 (84, 89)	16 (13, 19)	87 (85, 90)	16 (13, 20)
Sup Ct 5 (LD-AR)	2016	87 (85, 89)	12 (9, 15)	87 (85, 89)	12 (9, 15)
Sup Ct 9 (AD-LR)	2016	80 (78, 82)	12 (9, 15)	79 (77, 81)	12 (9, 16)
Governor (LD-AR)	2018	81 (79, 83)	14 (11, 18)	81 (79, 84)	15 (11, 18)
Land Comm (LD-LR)	2018	83 (81, 85)	14 (11, 17)	83 (81, 85)	15 (12, 18)
U.S. Sen (AD-LR)	2018	89 (87, 90)	16 (13, 19)	89 (87, 90)	17 (14, 21)
RR Comm 1 (LD-AR)	2020	77 (76, 79)	13 (10, 16)	77 (75, 79)	14 (11, 17)
Sup Ct 8 (LD-AR)	2020	79 (78, 81)	13 (10, 16)	79 (77, 81)	15 (11, 18)
Avg.		83	14	83	15

Table A18: EI CVAP: West Texas HDs pooled

## State House District 118 (Bexar County)

Office	Year	Former		Enacted	
		Latinos	Anglos	Latinos	Anglos
Land Comm (AD-LR)	2014	82 (74, 89)	13 (6, 22)	80 (68, 89)	15 (9, 23)
Lt. Governor (LD-AR)	2014	88 (82, 93)	17 (10, 27)	81 (71, 89)	23 (13, 33)
Sup Ct 7 (LD-AR)	2014	88 (82, 94)	14 (7, 23)	84 (75, 91)	15 (8, 25)
State Rep 118 (LD-LR)	2016	81 (75, 86)	15 (8, 23)	-	-
Sup Ct 5 (LD-AR)	2016	88 (83, 92)	14 (7, 23)	88 (81, 93)	14 (8, 22)
Sup Ct 9 (AD-LR)	2016	80 (75, 85)	13 (6, 21)	84 (75, 91)	13 (7, 21)
Governor (LD-AR)	2018	76 (71, 81)	16 (8, 24)	78 (69, 86)	16 (8, 26)
Land Comm (LD-LR)	2018	81 (76, 86)	16 (7, 25)	82 (73, 88)	18 (10, 27)
State Rep 118 (LD-LR)	2018	84 (78, 89)	17 (8, 28)	-	-
U.S. Sen (AD-LR)	2018	85 (80, 90)	19 (10, 29)	87 (78, 93)	20 (12, 31)
RR Comm 1 (LD-AR)	2020	79 (74, 83)	19 (10, 29)	78 (70, 84)	18 (8, 28)
State Rep 118 (LD-AR)	2020	82 (78, 86)	19 (10, 29)	-	-
Sup Ct 8 (LD-AR)	2020	80 (75, 84)	19 (10, 28)	79 (71, 85)	17 (9, 27)
Avg.		83	16	82	17

Table A19: EI CVAP: HD 118

Office	Year	Latinos	Anglos
Land Comm (AD-LR)	2014	89 (87, 91)	18 (15, 20)
Lt. Governor (LD-AR)	2014	90 (88, 92)	30 (28, 33)
Sup Ct 7 (LD-AR)	2014	90 (88, 92)	25 (22, 27)
Sup Ct 5 (LD-AR)	2016	92 (91, 93)	20 (17, 23)
Sup Ct 9 (AD-LR)	2016	88 (86, 90)	17 (15, 20)
Governor (LD-AR)	2018	87 (85, 89)	28 (25, 31)
Land Comm (LD-LR)	2018	90 (88, 92)	28 (26, 31)
U.S. Sen (AD-LR)	2018	90 (88, 92)	38 (35, 40)
RR Comm 1 (LD-AR)	2020	88 (85, 89)	29 (27, 31)
Sup Ct 8 (LD-AR)	2020	89 (88, 91)	26 (24, 30)
Avg.		89	26

Table A20: EI CVAP: Bexar County

**B Appendix: Elections Analyzed for Opportunity Analysis**

Year	Office	Name	Party	Ethnicity
2014	Lt. Governor	Van De Putte	D	Hispanic
2014	Sup Ct 7	Benavides	D	Hispanic
2014	RR Comm 3	Brown	D	Black
2016	Sup Ct 5	Garza	D	Hispanic
2018	CCA 7	Franklin	D	Black
2018	CCA Pres Judge	Jackson	D	Black
2018	Comptroller	Chevalier	D	Black
2018	Governor	Valdez	D	Hispanic
2018	Land Comm	Suazo	D	Hispanic
2020	CCA 3	Davis Frizell	D	Black
2020	RR Comm 1	Castaneda	D	Hispanic
2020	Sup Ct 7	Williams	D	Black
2020	Sup Ct 8	Triana	D	Hispanic

Table B1: Minority-preferred Candidate in Statewide Elections Analyzed

C Appendix: Additional Figures for Opportunity Analysis



Figure C1: HD 43

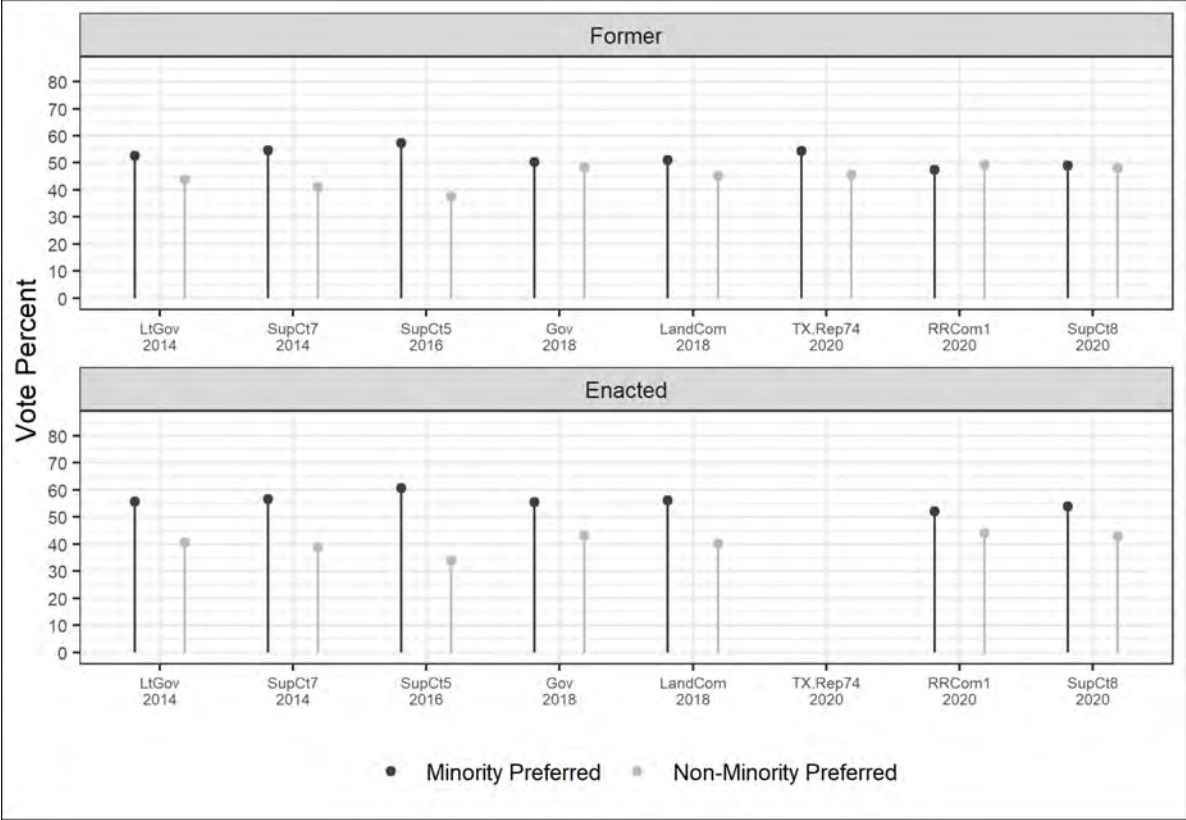


Figure C2: HD 74

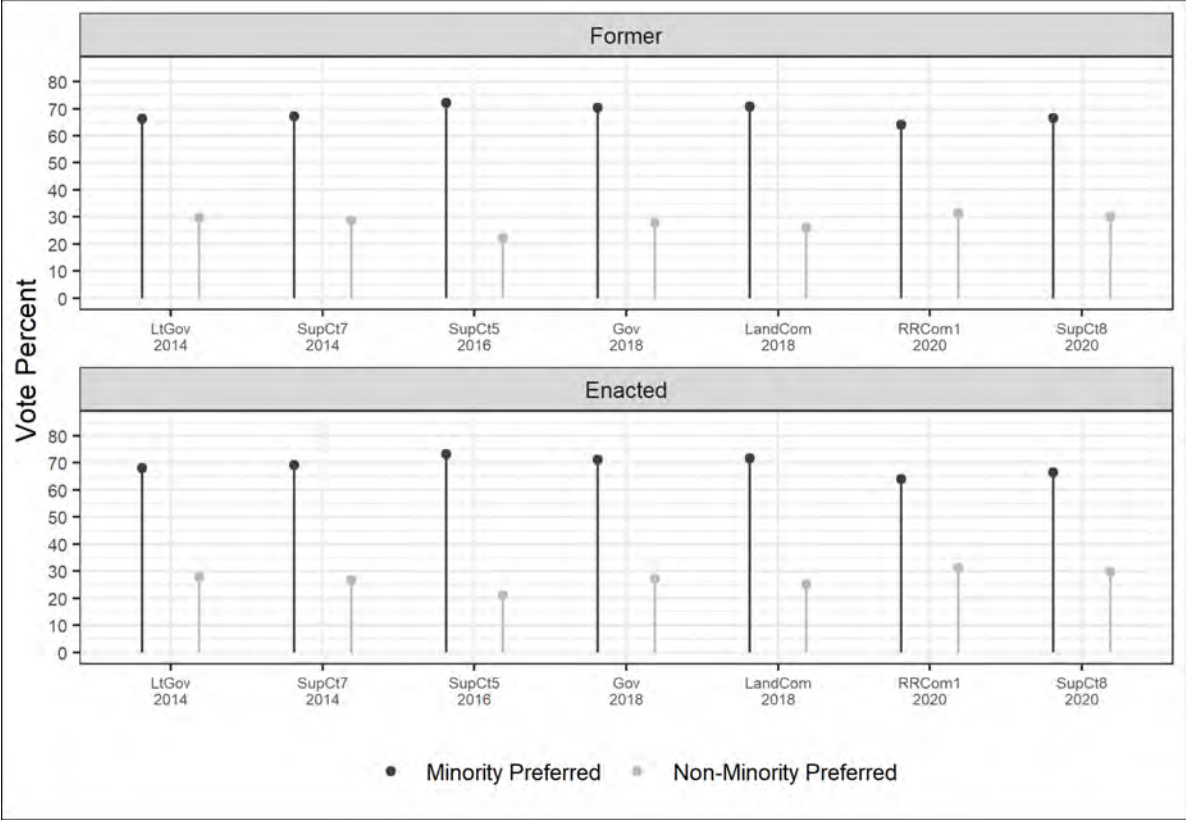


Figure C3: HD 75

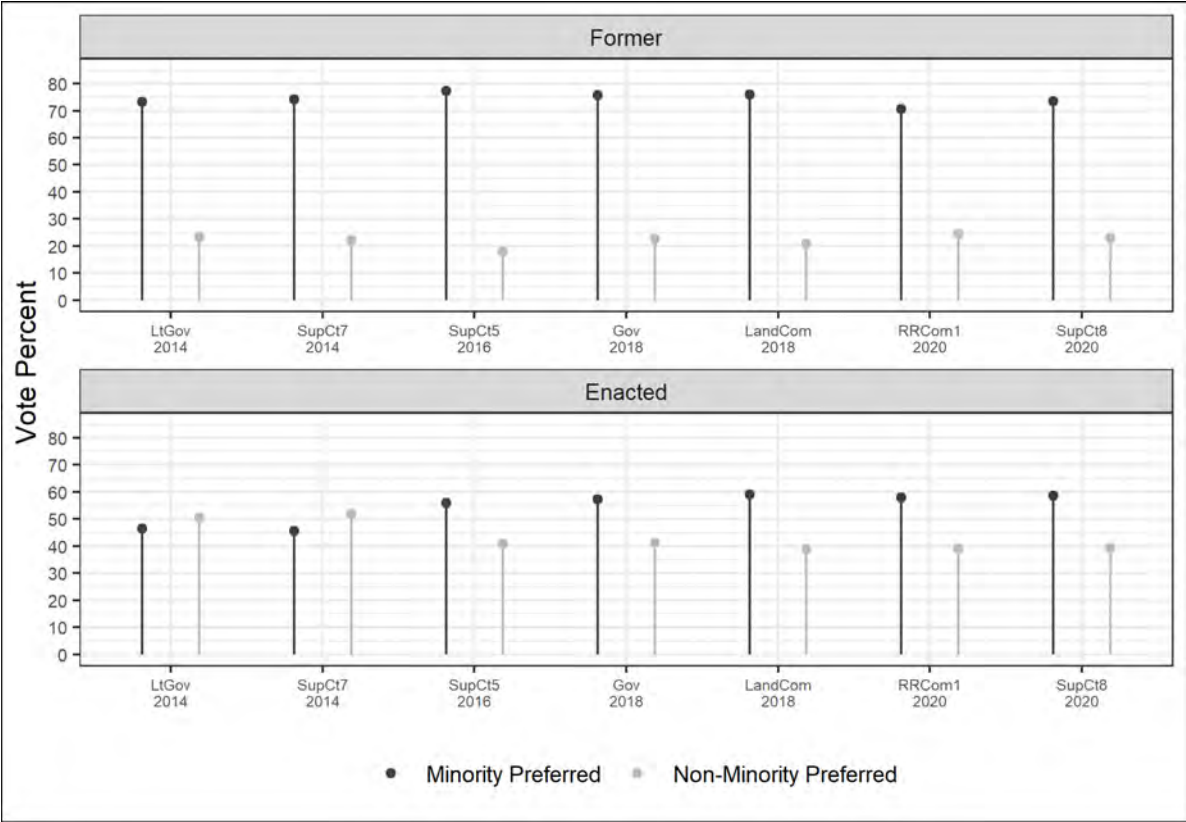


Figure C4: HD 76



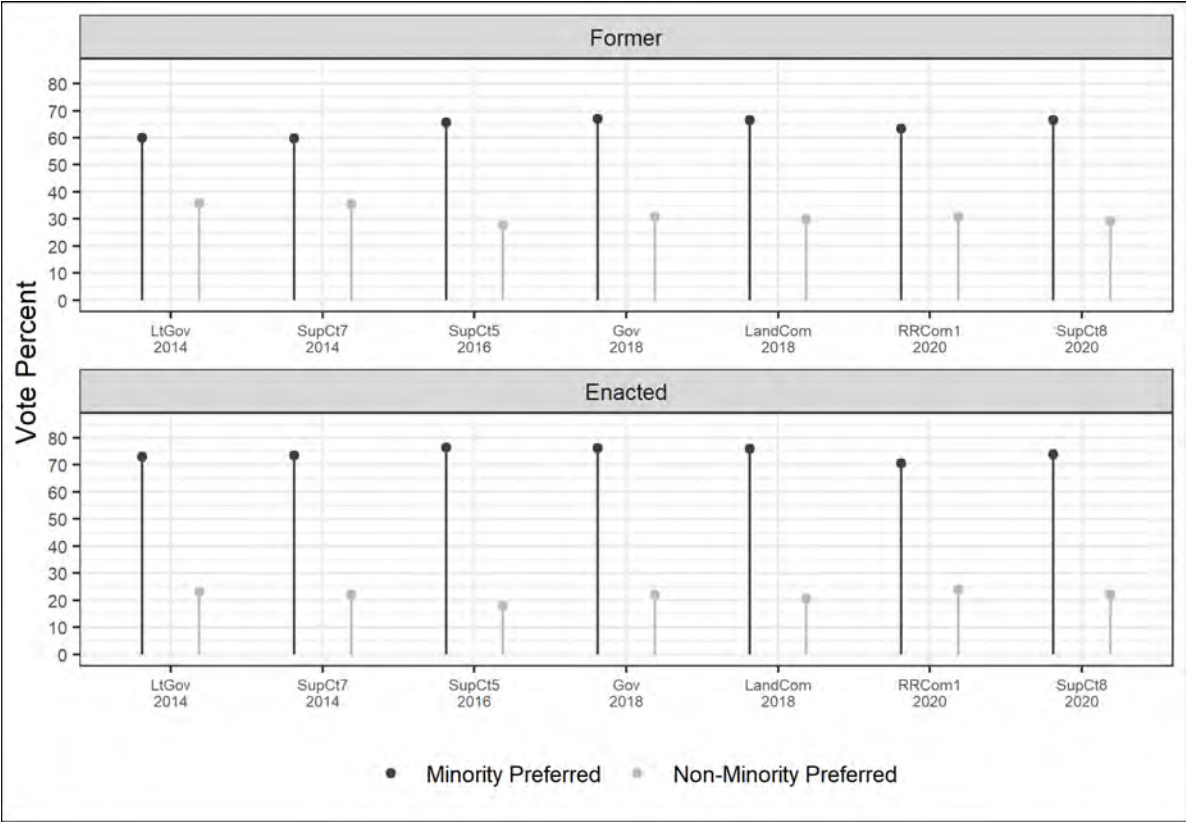


Figure C5: HD 77

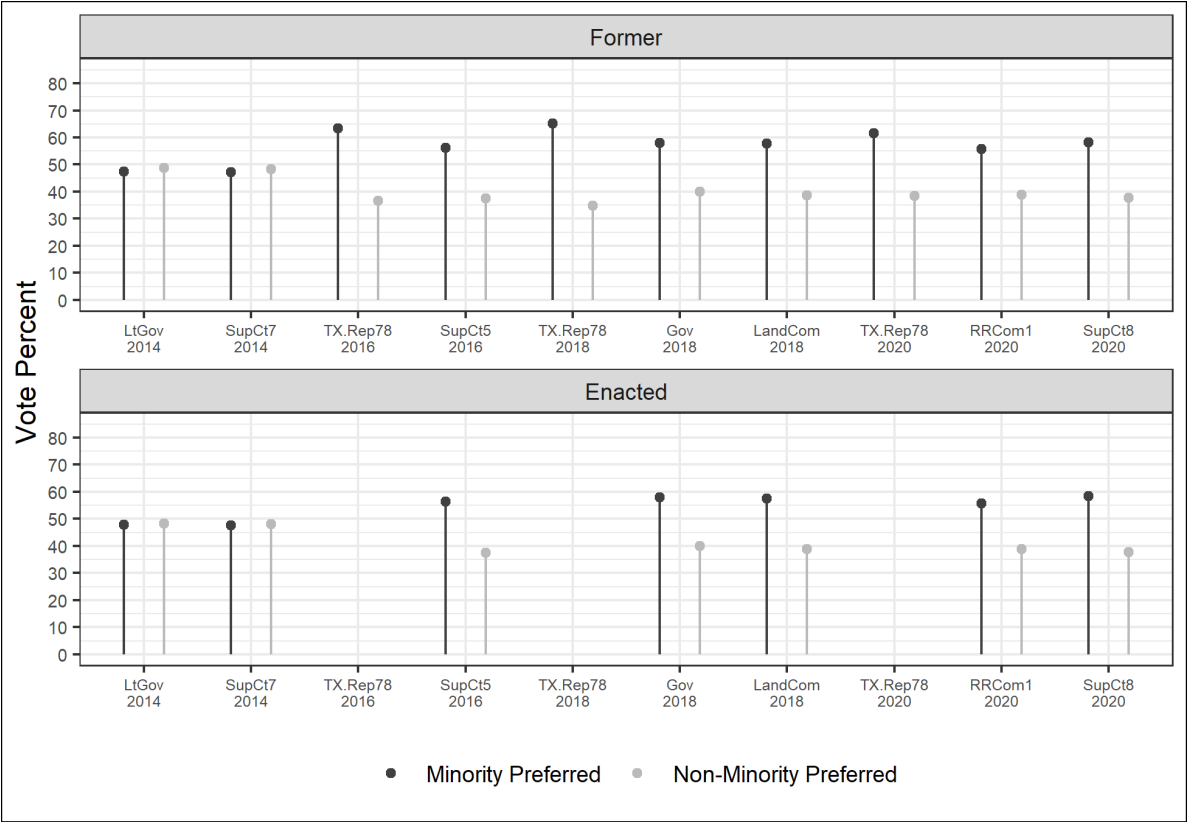


Figure C6: HD 78

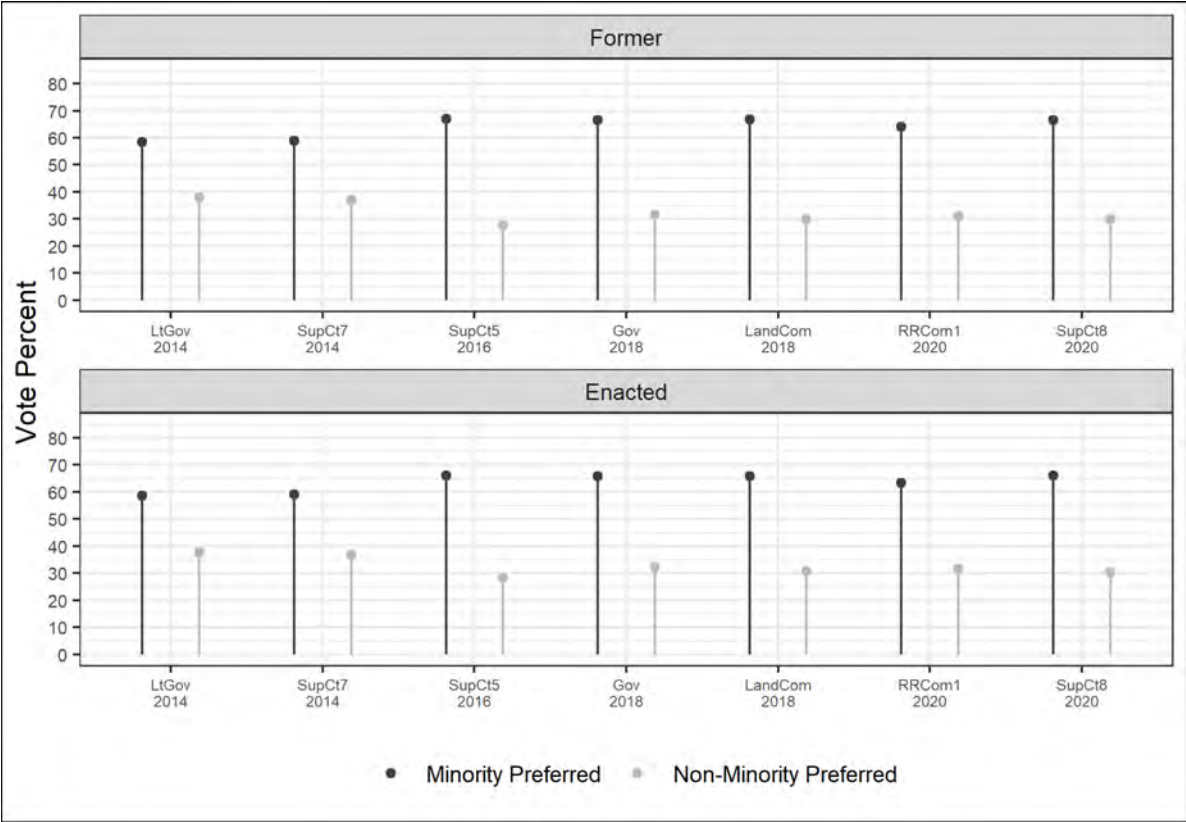


Figure C7: HD 79

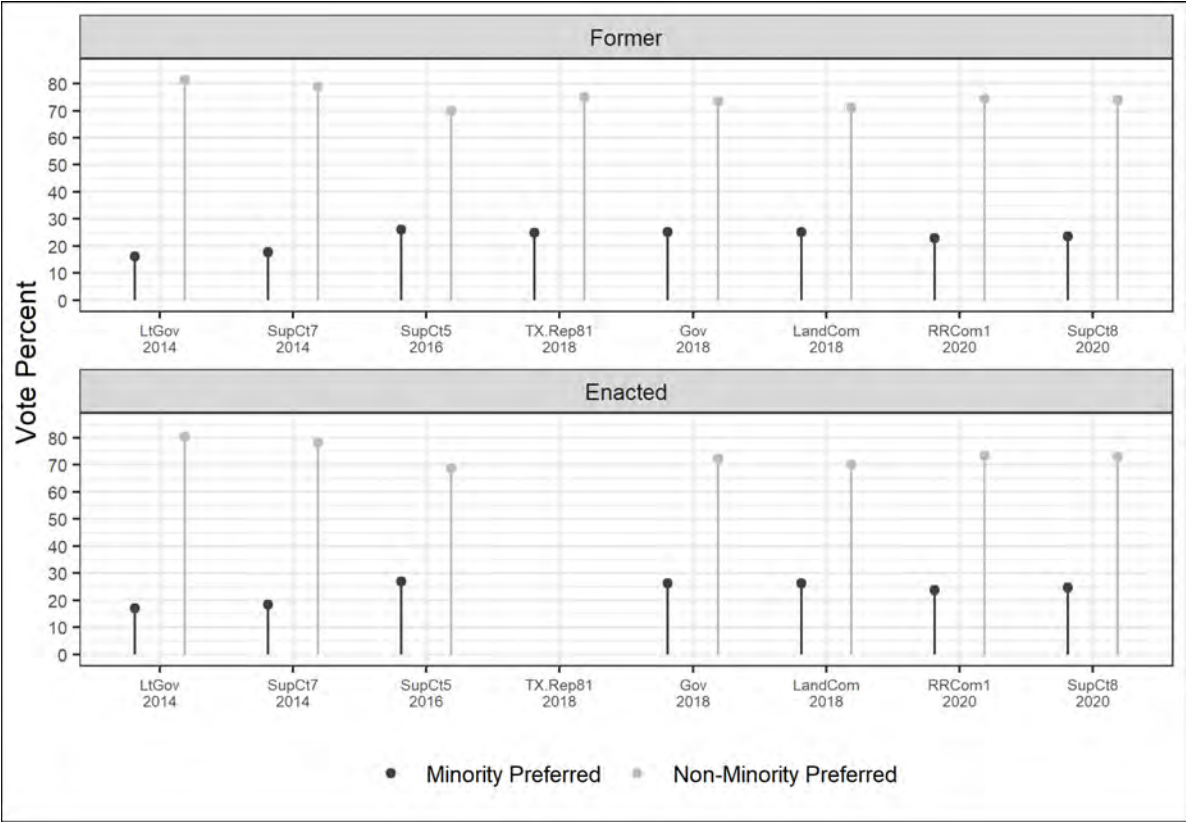


Figure C8: HD 81

## D Appendix: Opportunity Analysis Using All Elections from Racially Polarized Voting Analysis

District	Endogenous Elections		Former Districts Exogenous Elections		All Elections		Enacted Districts Exogenous Elections	
	Margin	Win %	Margin	Win %	Margin	Win %	Margin	Win %
<b>West Texas:</b>								
23	-1.96	0	-5.06	20	-4.17	14	-11.97	0
<b>Dallas-Fort Worth Metroplex:</b>								
6	-13.49	0	-12.64	0	-12.73	0	-31.48	0
24	-1.33	0	-12.08	6	-11.48	6	-30.22	0
<b>Harris County:</b>								
38							-35.59	0

Table D1: CD Opportunity District Analysis Using All Elections from Racially Polarized Voting Analysis

District	Endogenous Elections		Former Districts Exogenous Elections		All Elections		Enacted Districts Exogenous Elections	
	Margin	Win %	Margin	Win %	Margin	Win %	Margin	Win %
<b>South Texas:</b>								
31	16.83	100	6.63	70	7.55	79	-8.94	20
43	-22.43	0	-13.33	0	-15.43	0	-16.92	0
<b>El Paso and West Texas:</b>								
74	8.79	100	6.95	90	7.12	93	15.27	100
75		100	41.29	100	41.29	100	43.36	100
76		100	52.57	100	52.57	100		
77		100	33.22	100	33.22	100	52.82	100
78	26.84	100	13.50	70	16.58	79	13.76	70
79		100	32.11	100	32.11	100	31.22	100
81	-49.98	0	-51.80	0	-51.63	0	-49.81	0
<b>Bexar County:</b>								
118	14.42	100	11.18	100	11.93	100	-4.65	30

Table D2: HD Opportunity District Analysis Using All Elections from Racially Polarized Voting Analysis

## E Maps

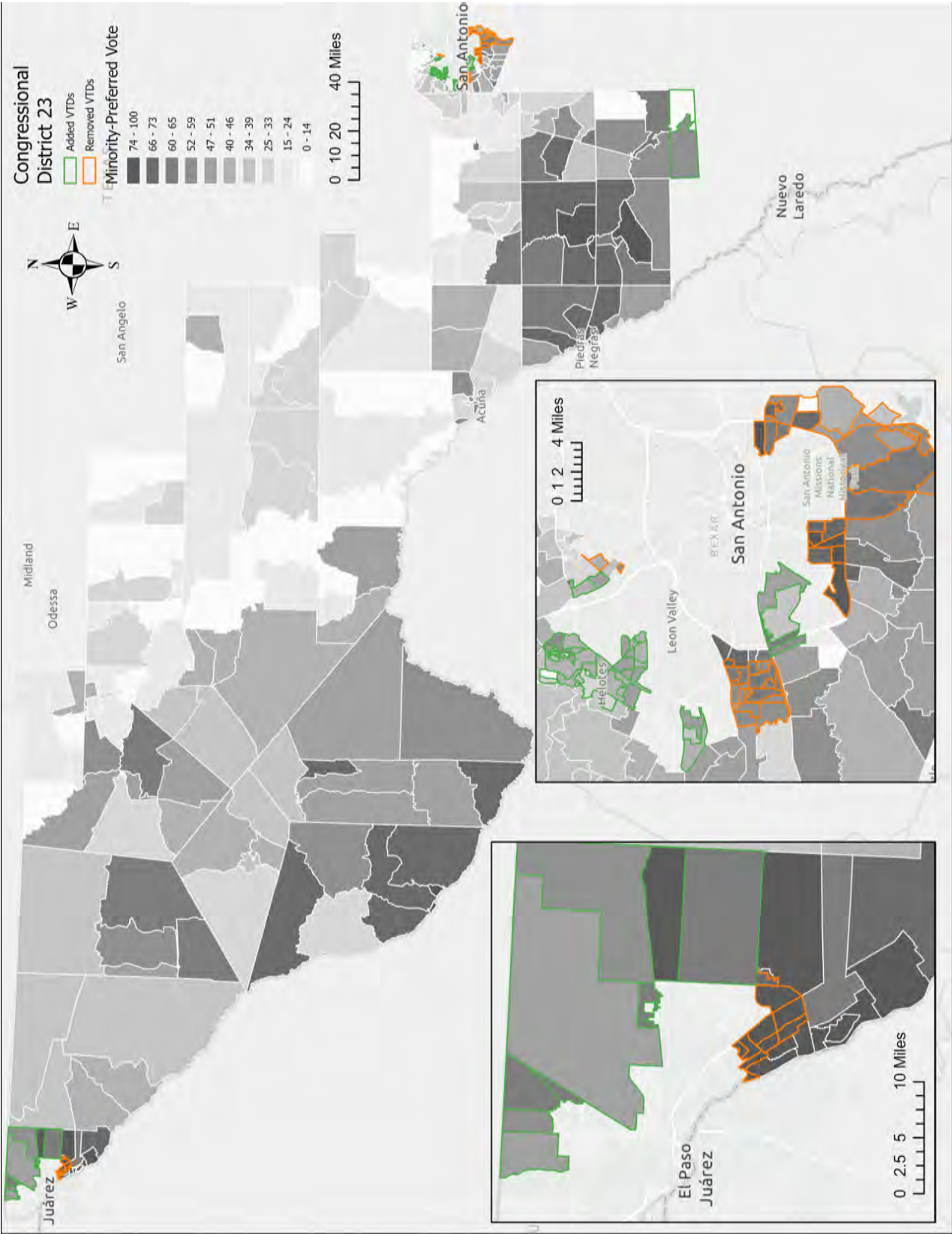


Figure E1: CD 23: Average Percent Minority-Preferred Vote

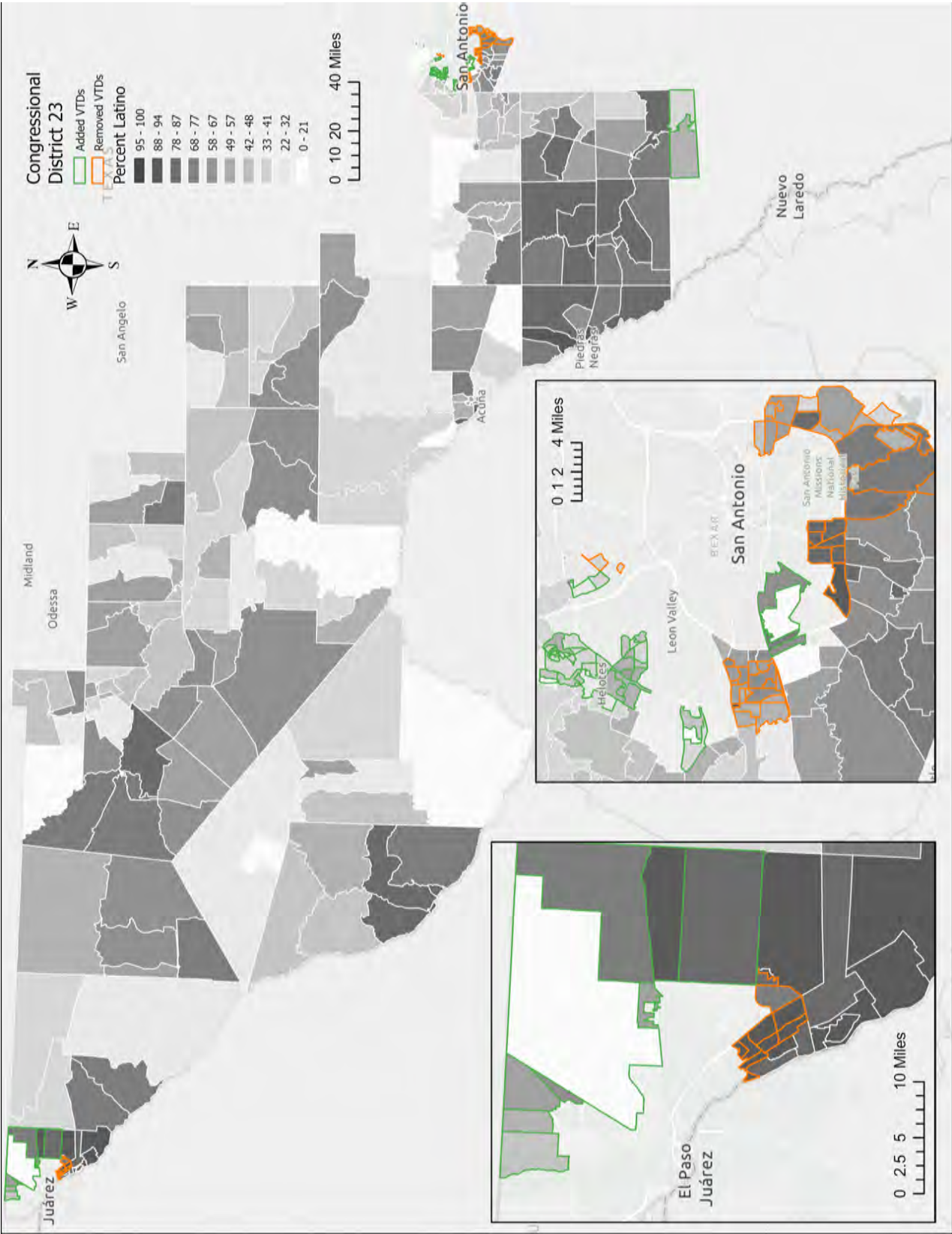


Figure E2: CD 23: Proportion Latino CVAP



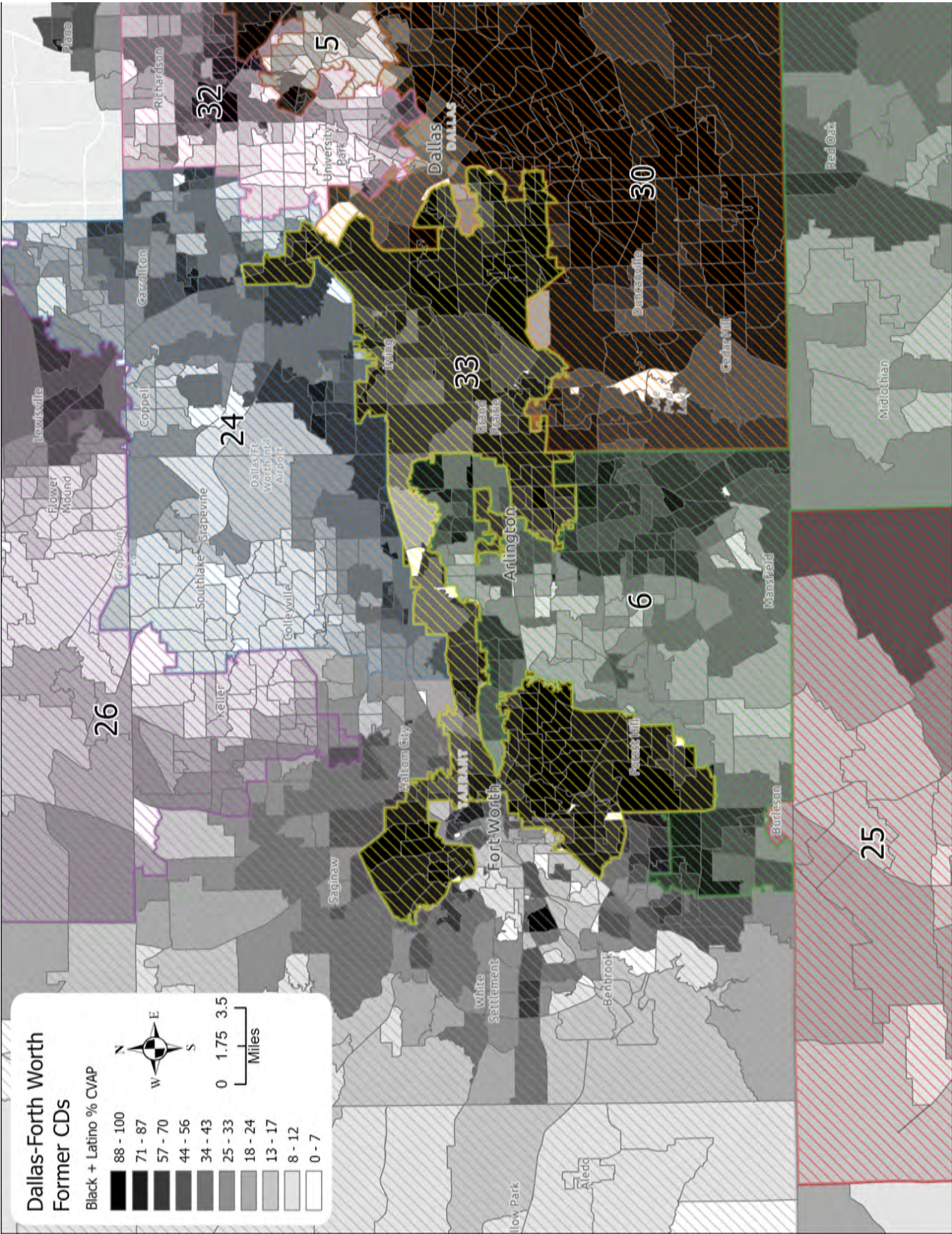


Figure E3: Dallas-Forth Worth Former CDs: Combined Proportion Black and Latino CVAP



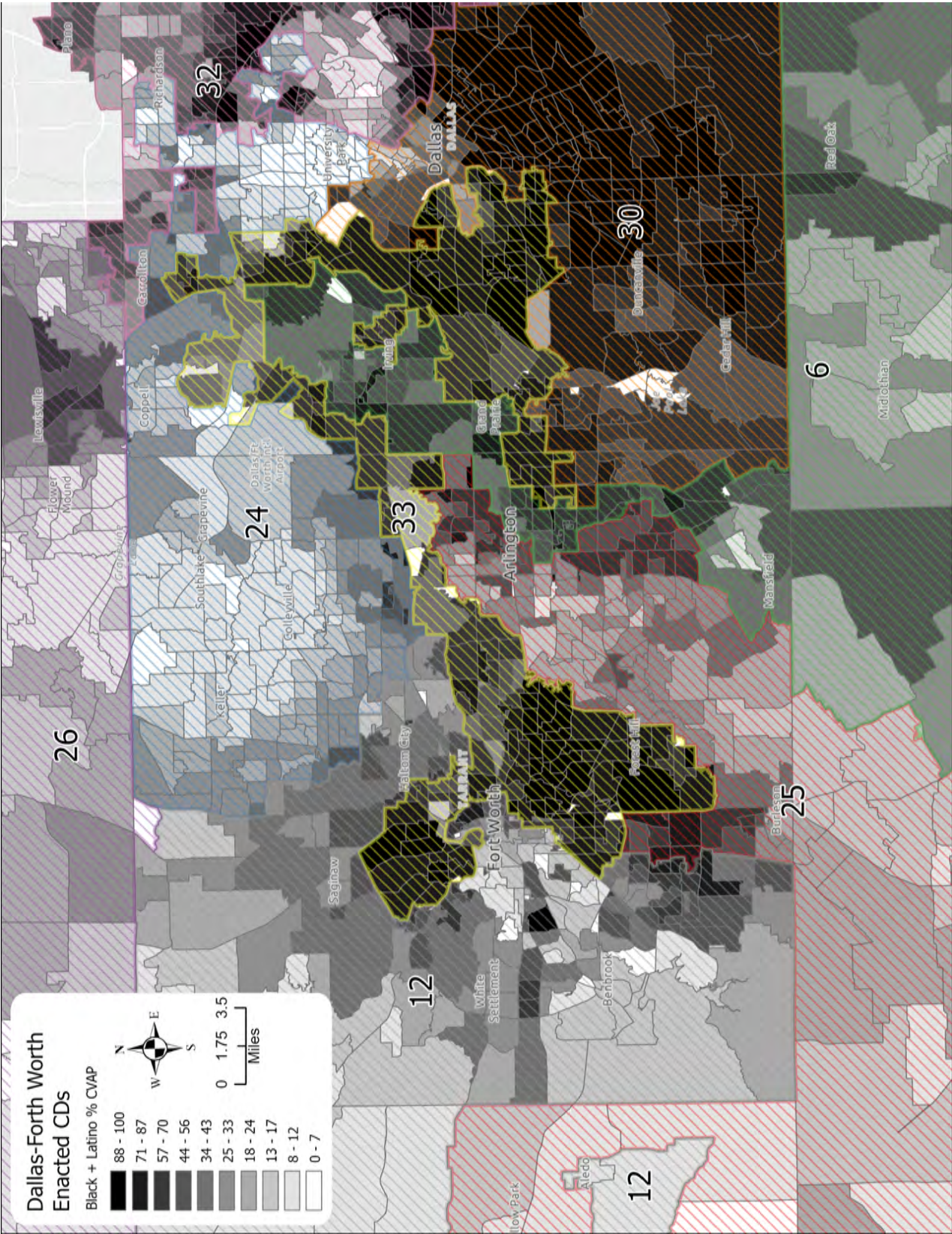


Figure E4: Dallas-Fort Worth Enacted CDs: Combined Proportion Black and Latino CVAP



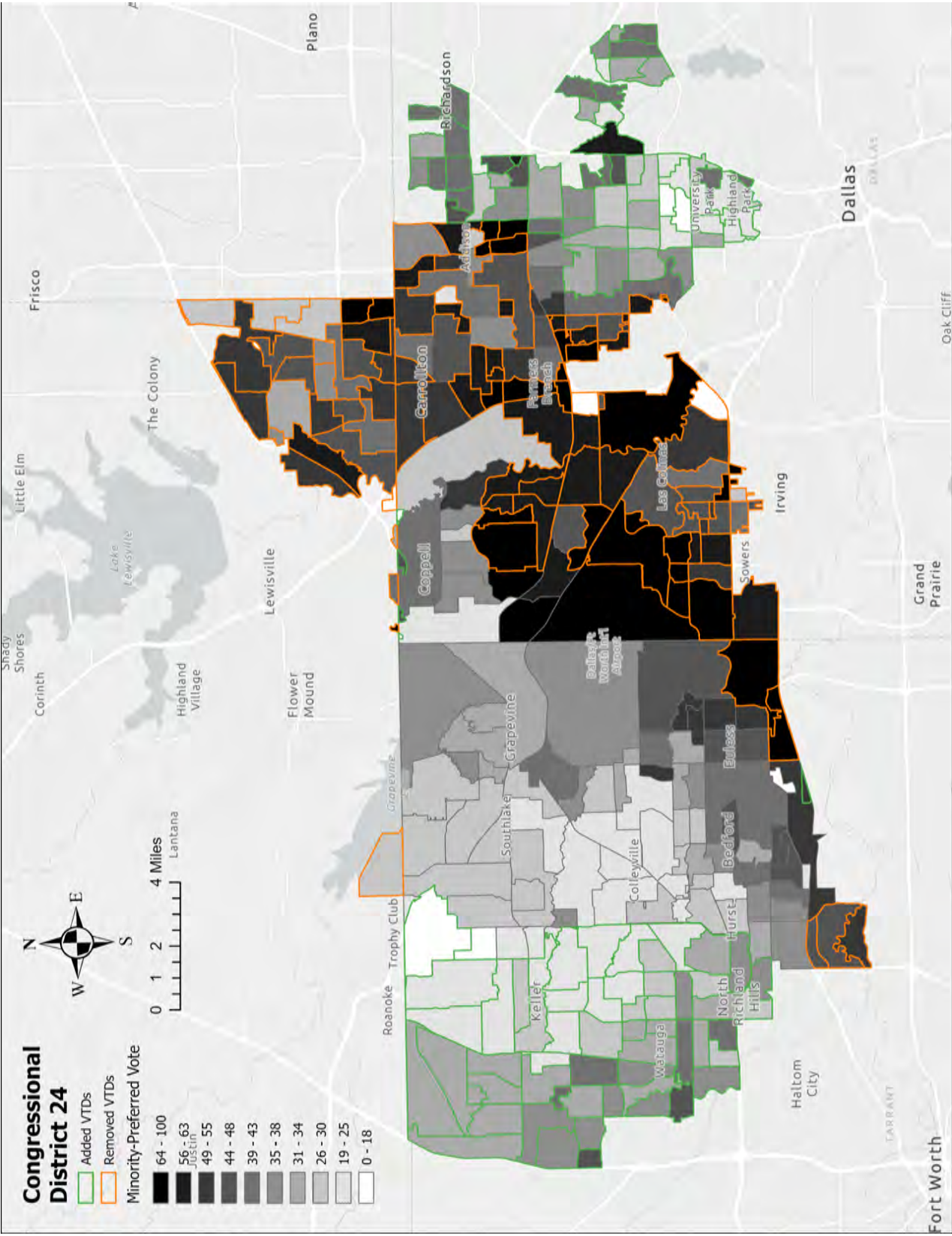


Figure E5: CD 24:Average Percent Minority-Preferred Vote

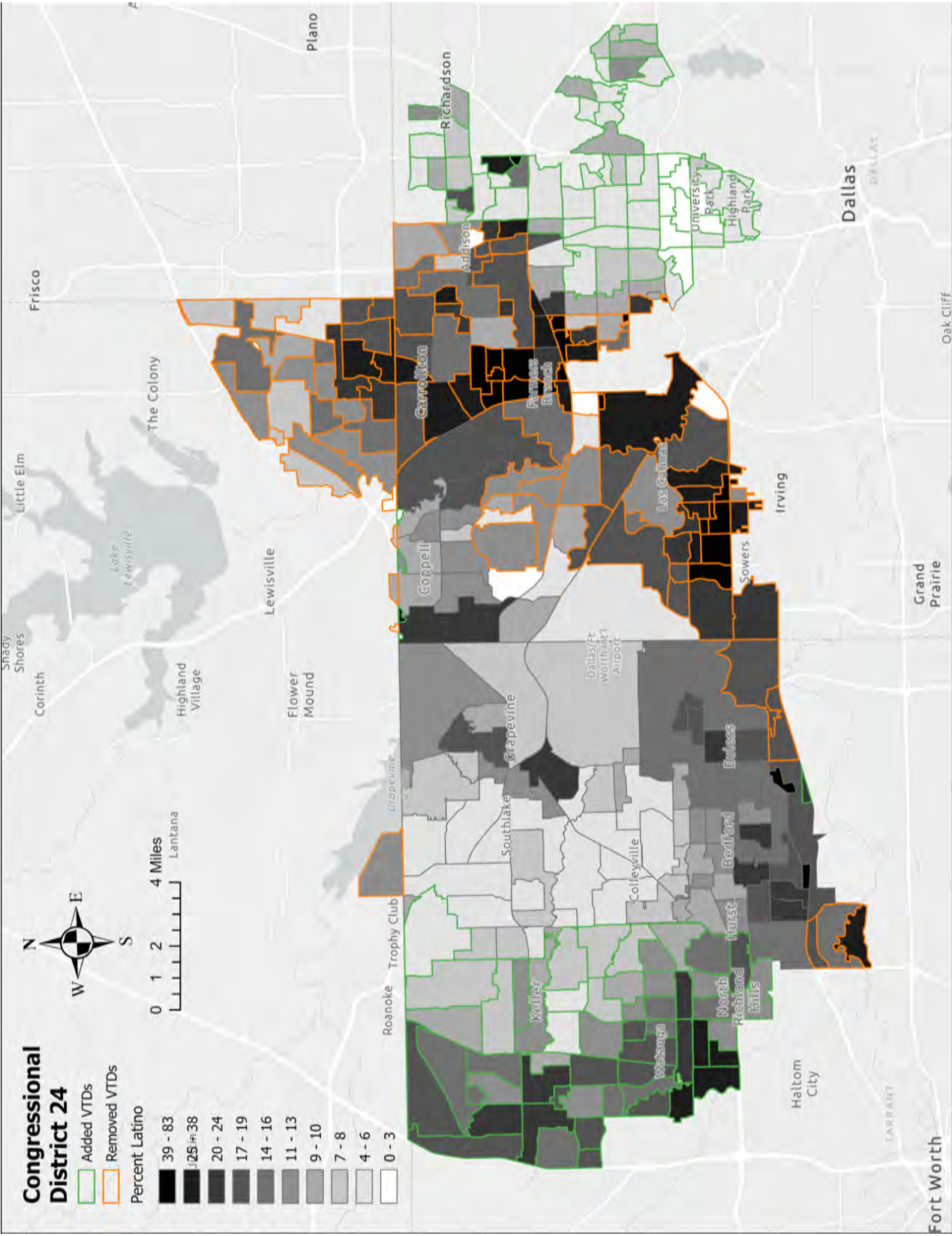


Figure E6: CD 24: Percent Latino



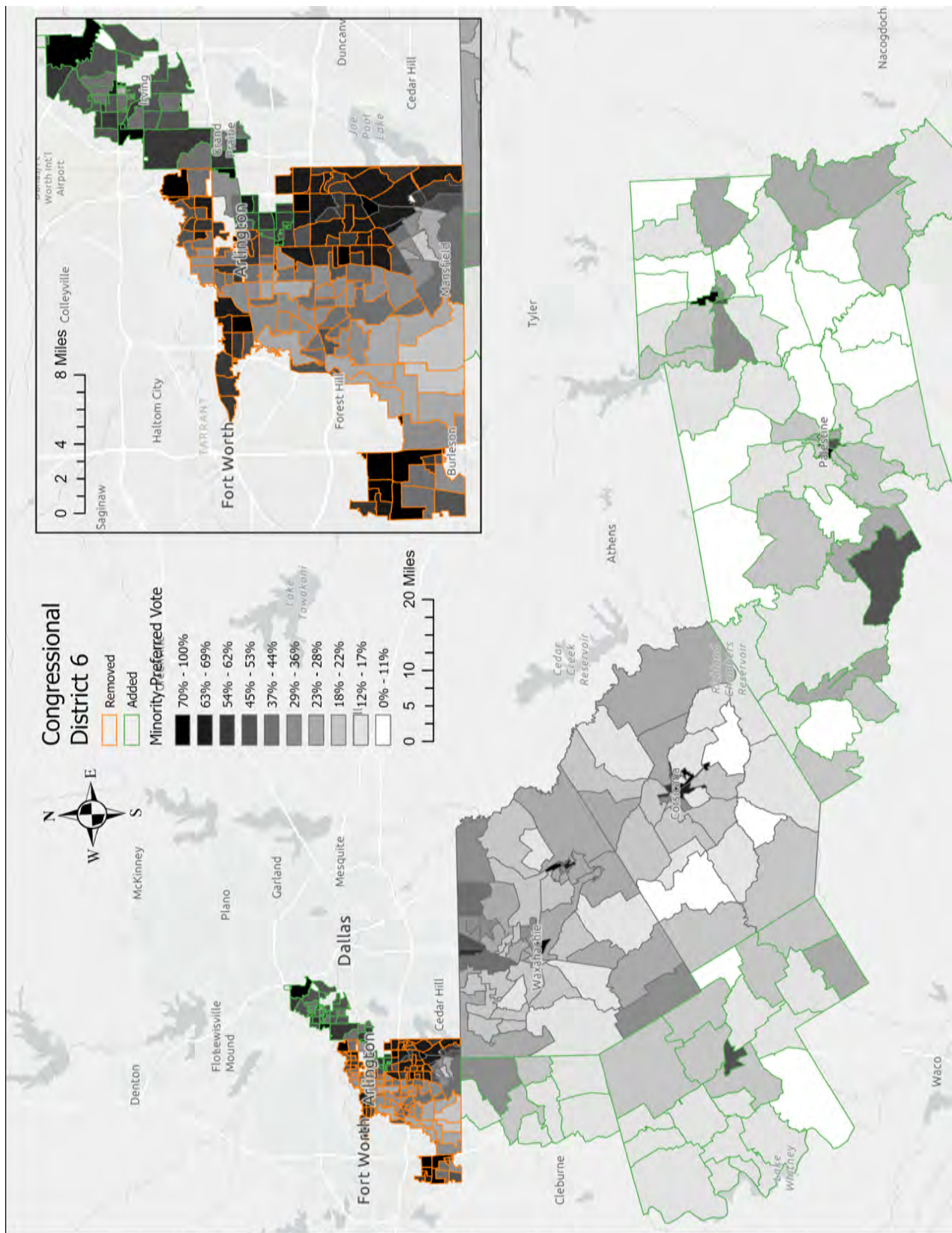




Figure E8: CD 6: Percent Latino



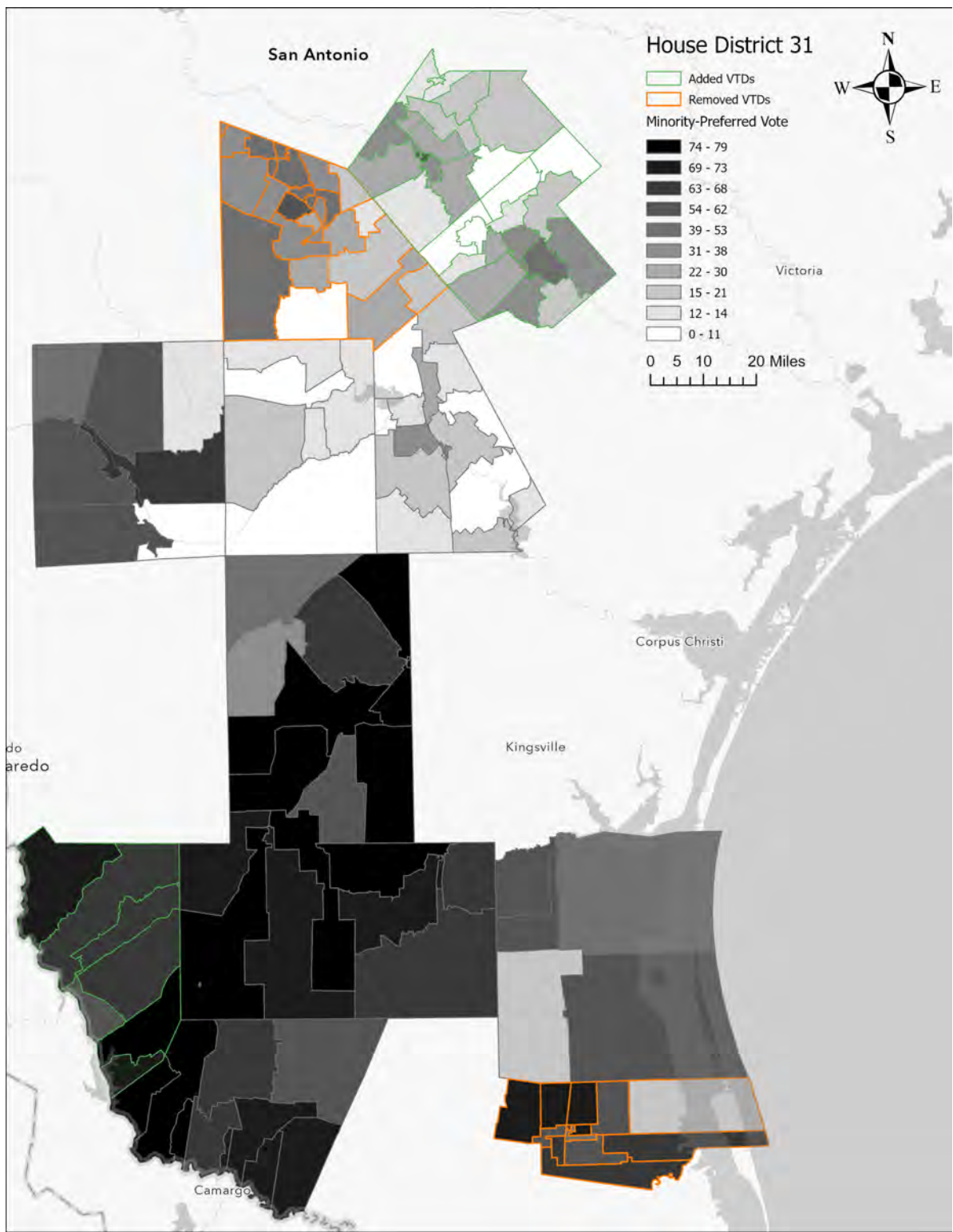


Figure E9: HD 31: Average Percent Minority-Preferred Vote

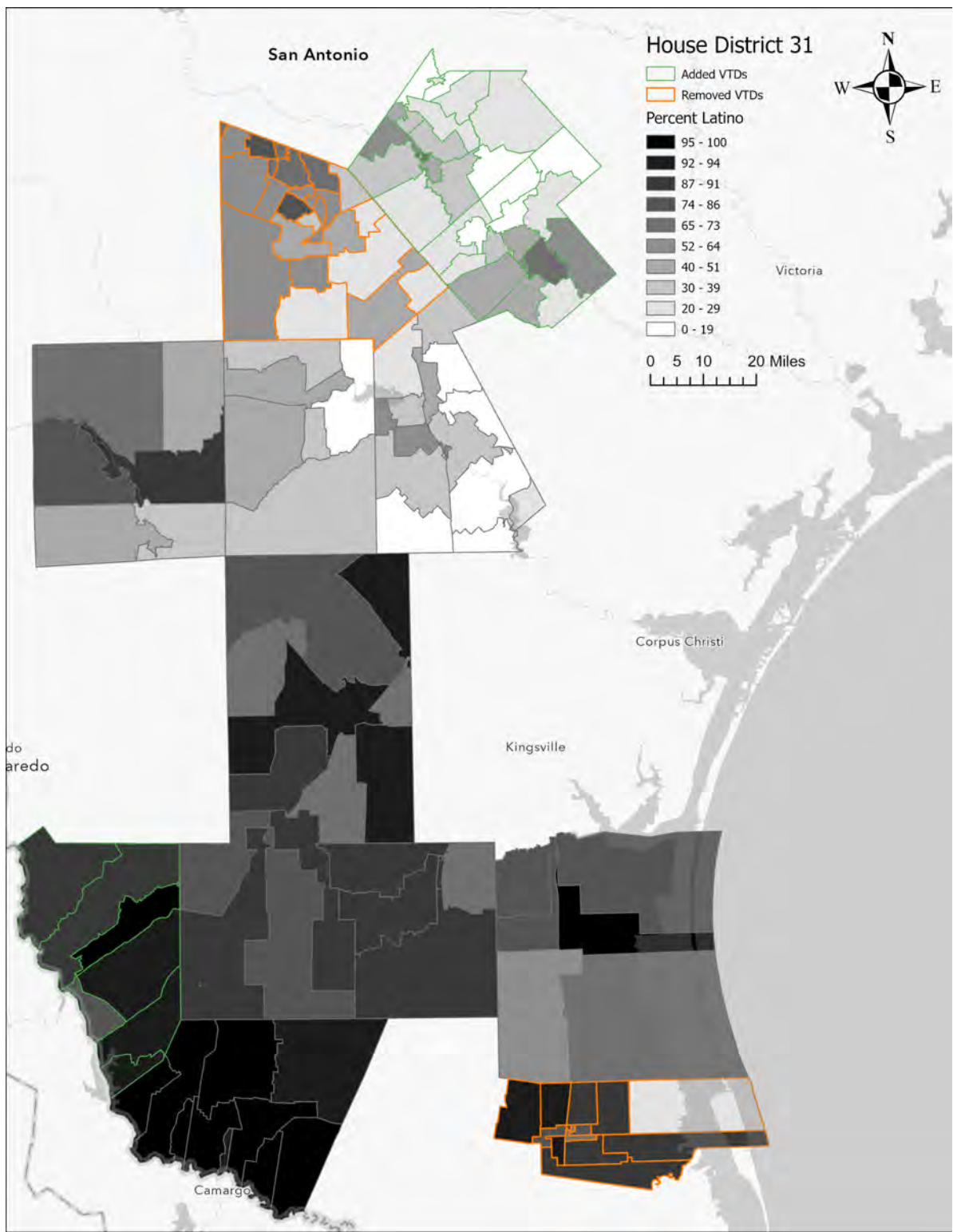


Figure E10: HD 31: Percent Latino

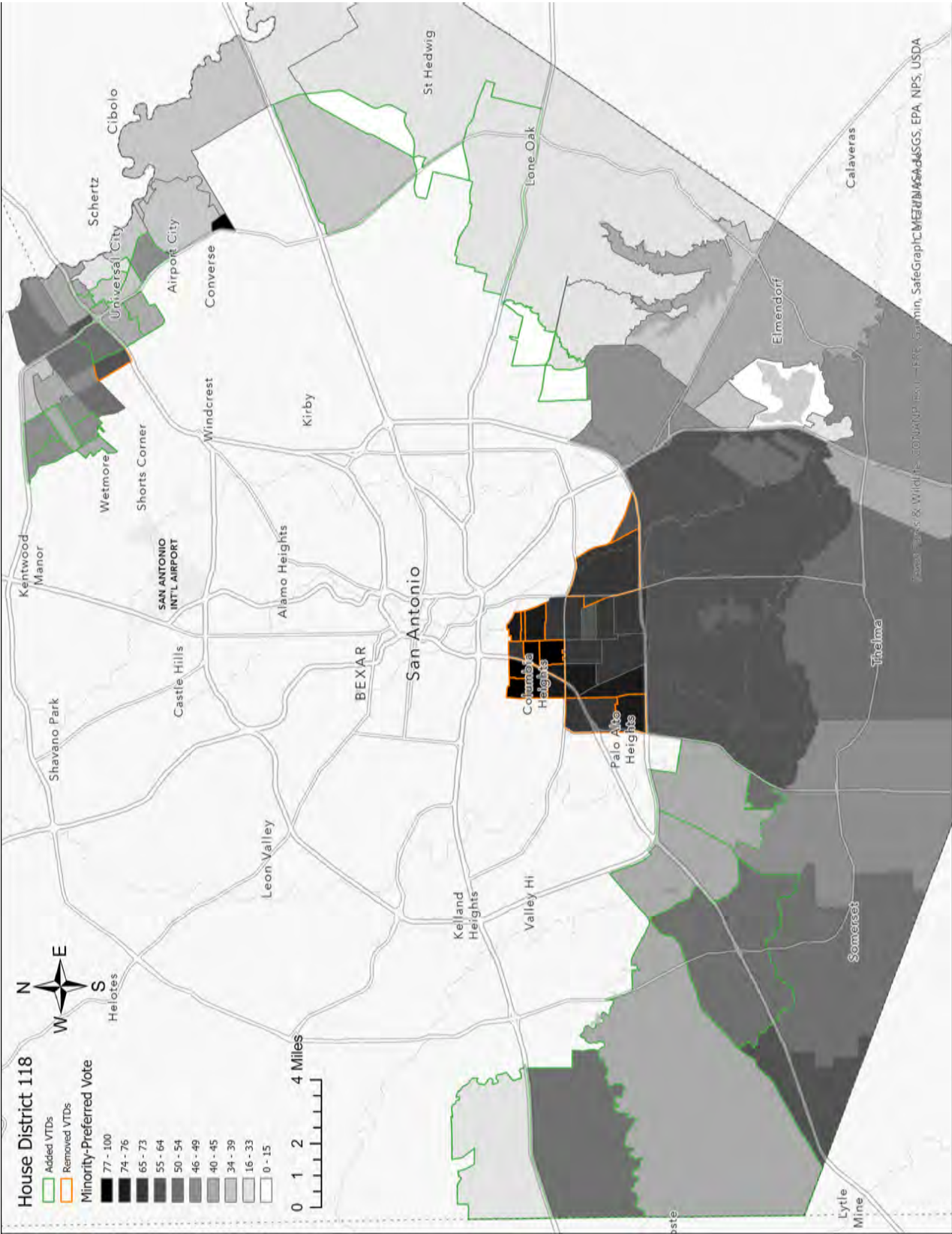


Figure E11: HD 118: Average Percent Minority-Preferred Vote





Figure E12: HD 118: Percent Latino

## F Appendix: CDs and HDs by Percent Latino CVAP

Tables in this section are for the proportion Latino CVAP in CDs and HDs. CVAP is based on the data provided by the United States. Each table has a line separating districts with 40% Latino CVAP or higher from those with less than 40% Latino CVAP.

District	Former Win %	Enacted Win %	Former Latino %	Enacted Latino %
34	100.00	100	79.49	86.45
16	100.00	100	77.01	78.79
15	100.00	100	73.55	74.41
28	100.00	100	69.44	68.90
20	100.00	100	64.12	67.34
29	100.00	100	64.65	62.30
23	14.29	0	62.16	56.74
27	0.00	0	45.89	47.95
35	100.00	100	51.78	45.99
33	100.00	100	48.91	42.24
19	0.00	0	30.91	32.06
11	0.00	0	30.53	32.03
18	100.00	100	28.42	28.71
9	100.00	100	27.14	25.92
21	0.00	0	24.43	25.89
22	0.00	0	21.45	23.21
8	0.00	0	16.52	22.57
36	0.00	0	19.76	22.25
30	100.00	100	24.79	22.24
6	0.00	0	18.42	21.97
2	0.00	0	24.09	21.85
32	28.57	100	16.31	21.08
37	-	100	-	20.84
7	14.29	100	22.50	20.74
13	0.00	0	19.89	20.21
38	-	0	-	18.85
5	0.00	0	17.81	18.51
31	0.00	0	19.98	18.15
14	0.00	0	18.87	17.98
17	0.00	0	19.83	17.96
12	0.00	0	16.89	17.64
10	0.00	0	21.05	17.62
25	0.00	0	15.50	15.39
26	0.00	0	14.54	13.56
24	0.00	0	16.23	12.49
3	0.00	0	11.03	11.23
4	0.00	0	9.17	9.60
1	0.00	0	10.58	9.40

Table F1: CDs by Percent Latino CVAPs

District	Former Win %	Enacted Win %	Former Latino %	Enacted Latino %
42	100	100	94	94
38	100	100	87	92
35	100	100	85	92
40	100	100	91	90
36	100	100	90	90
39	100	100	89	89
75	100	100	88	88
77	100	100	74	86
41	100	100	82	82
79	100	100	79	78
37	100	71	87	78
80	100	100	85	77
74	86	100	74	74
34	86	100	68	70
140	100	100	68	69

78	71	71	67	68
124	100	100	67	67
117	86	100	56	66
119	100	100	61	65
31	57	29	76	65
144	71	71	67	65
143	100	100	64	63
125	100	100	68	63
116	100	100	60	60
123	100	100	62	60
43	0	0	62	59
118	100	29	68	58
104	100	100	60	56
81	0	0	52	53
145	100	100	60	52
90	100	100	60	50
120	100	100	44	44
51	100	100	43	43
107	71	100	28	42
32	0	0	48	40
148	100	71	42	40
<hr/>				
88	0	0	39	38
45	43	71	32	38
131	100	100	34	37
135	43	71	29	37
82	0	0	37	37
103	100	100	38	36
84	0	0	34	35
110	100	100	39	35
105	71	71	34	35
122	0	0	33	34
142	100	100	34	33
30	0	0	36	33
44	0	0	33	33
149	100	100	30	33
121	0	0	36	33
72	0	0	34	33
137	100	100	31	31
128	0	0	30	30
100	100	100	26	30
53	0	0	26	30
141	100	100	30	29
50	100	100	24	29
83	0	0	30	29
87	0	0	28	29
17	0	0	34	29
46	100	100	30	28
139	100	100	32	28
138	0	0	33	27
29	0	0	24	26
147	100	100	25	25
113	57	71	24	25
25	0	0	28	24
86	0	0	24	24
132	0	0	31	23
28	0	0	18	23
111	100	100	24	23
101	100	100	26	23
129	0	0	23	23
127	0	0	22	22
48	100	100	21	22
150	0	0	22	22
92	0	71	15	22
52	43	0	25	21
95	100	100	21	21
99	0	0	21	21
136	57	71	17	21

54	0	0	21	21
14	0	0	21	21
55	0	0	20	21
23	0	0	20	21
71	0	0	21	20
126	0	0	25	20
85	0	0	31	20
10	0	0	19	20
73	0	0	20	20
114	29	100	13	19
91	0	0	19	19
3	0	0	19	19
76	100	71	87	19
93	0	0	20	19
26	0	0	16	19
49	100	100	17	19
58	0	0	18	18
130	0	0	19	18
102	57	100	15	18
27	100	100	17	18
146	100	100	19	18
109	100	100	18	17
56	0	0	18	17
20	0	0	16	17
24	0	0	16	16
115	57	57	20	16
22	100	100	13	16
13	0	0	14	16
63	0	0	12	16
12	0	0	18	16
57	0	0	12	16
96	0	0	17	15
16	0	0	17	15
133	0	0	15	15
97	0	0	16	15
94	0	0	16	15
69	0	0	14	15
15	0	0	15	15
64	0	0	16	15
4	0	0	13	14
18	0	0	17	14
47	29	86	14	14
112	29	0	21	14
59	0	0	16	13
65	29	0	16	13
68	0	0	16	13
19	0	0	6	13
134	71	86	13	13
89	0	0	12	13
8	0	0	15	13
33	0	0	13	13
67	14	0	11	13
6	0	0	13	12
106	0	0	14	12
70	0	29	12	11
9	0	0	6	10
5	0	0	11	10
2	0	0	10	10
66	0	0	9	10
61	0	0	9	10
60	0	0	12	10
98	0	0	10	10
7	0	0	9	9
11	0	0	11	9
62	0	0	8	8
108	14	0	12	7
21	0	0	11	7
1	0	0	5	4

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## G Appendix: EI Results for Illustrative Districts

The tables below are for EI estimates for Anglo, Latino, and Black voters. Estimates were also produced for a category of "other", but those are not shown. Cell entries are for the Democratic vote share, with 95% confidence intervals in parentheses. The party and race for the two major-party candidates are listed next to the office (D = Democrat, R = Republican, A = Anglo, L = Latino, B = Black).

### Congressional District 23 (West Texas)

Office	Year	Latinos	Anglos
Land Comm (AD-LR)	2014	84 (80, 86)	13 (11, 16)
Lt. Governor (LD-AR)	2014	87 (84, 90)	17 (14, 20)
Sup Ct 7 (LD-AR)	2014	89 (86, 91)	16 (12, 19)
Sup Ct 5 (LD-AR)	2016	87 (85, 89)	14 (11, 18)
Sup Ct 9 (AD-LR)	2016	79 (77, 82)	13 (10, 15)
Governor (LD-AR)	2018	78 (75, 81)	15 (11, 18)
Land Comm (LD-LR)	2018	82 (79, 84)	14 (12, 17)
U.S. Sen (AD-LR)	2018	85 (82, 87)	19 (16, 23)
RR Comm 1 (LD-AR)	2020	75 (73, 78)	18 (14, 22)
Sup Ct 8 (LD-AR)	2020	77 (75, 79)	17 (13, 20)
Avg.		82	16

Table G1: EI CVAP – CD 23

**Congressional District 38 (Harris County)**

Office	Year	Latinos	Anglos
Land Comm (AD-LR)	2014	0.78 (0.7, 0.85)	0.09 (0.05, 0.13)
Lt. Governor (LD-AR)	2014	0.8 (0.73, 0.86)	0.11 (0.07, 0.16)
Sup Ct 7 (LD-AR)	2014	0.83 (0.76, 0.89)	0.09 (0.05, 0.14)
Sup Ct 5 (LD-AR)	2016	0.91 (0.88, 0.94)	0.07 (0.04, 0.1)
Sup Ct 9 (AD-LR)	2016	0.84 (0.79, 0.88)	0.07 (0.03, 0.11)
Governor (LD-AR)	2018	0.85 (0.8, 0.89)	0.09 (0.05, 0.14)
Land Comm (LD-LR)	2018	0.88 (0.83, 0.92)	0.1 (0.06, 0.14)
U.S. Sen (AD-LR)	2018	0.9 (0.86, 0.93)	0.11 (0.07, 0.17)
RR Comm 1 (LD-AR)	2020	0.83 (0.77, 0.87)	0.1 (0.06, 0.15)
Sup Ct 8 (LD-AR)	2020	0.82 (0.77, 0.86)	0.09 (0.06, 0.15)
Avg.		0.84	0.09

Table G2: EI CVAP – Illustrative CD 38

**State House Districts 31 (South Texas)**

Office	Year	Latinos	Anglos
Land Comm (AD-LR)	2014	85 (81, 88)	10 (6, 14)
Lt. Governor (LD-AR)	2014	91 (88, 94)	10 (5, 14)
Sup Ct 7 (LD-AR)	2014	92 (89, 94)	10 (5, 16)
Sup Ct 5 (LD-AR)	2016	88 (85, 91)	9 (5, 15)
Sup Ct 9 (AD-LR)	2016	78 (74, 81)	9 (5, 15)
Governor (LD-AR)	2018	71 (68, 74)	7 (4, 11)
Land Comm (LD-LR)	2018	78 (75, 81)	8 (5, 13)
U.S. Sen (AD-LR)	2018	80 (77, 83)	9 (5, 14)
RR Comm 1 (LD-AR)	2020	68 (66, 71)	10 (5, 16)
Sup Ct 8 (LD-AR)	2020	70 (67, 73)	10 (6, 15)
Avg.		80	9

Table G3: EI CVAP – Illustrative HD 31



## State House Districts in El Paso and West Texas

Office	Year	Latinos	Anglos
Land Comm (AD-LR)	2014	72 (63, 78)	21 (15, 28)
Lt. Governor (LD-AR)	2014	80 (72, 87)	21 (15, 28)
Sup Ct 7 (LD-AR)	2014	82 (75, 87)	23 (16, 30)
Sup Ct 5 (LD-AR)	2016	78 (73, 82)	20 (13, 27)
Sup Ct 9 (AD-LR)	2016	68 (63, 72)	20 (14, 29)
Governor (LD-AR)	2018	66 (62, 71)	21 (16, 28)
Land Comm (LD-LR)	2018	68 (63, 73)	22 (16, 29)
U.S. Sen (AD-LR)	2018	73 (67, 77)	23 (17, 31)
RR Comm 1 (LD-AR)	2020	61 (57, 65)	21 (15, 28)
Sup Ct 8 (LD-AR)	2020	63 (58, 68)	22 (16, 29)
Avg.		71	22

Table G4: EI CVAP – Illustrative HD 74

Office	Year	Latinos	Anglos
Land Comm (AD-LR)	2014	81 (72, 89)	41 (18, 67)
Lt. Governor (LD-AR)	2014	80 (72, 87)	43 (20, 68)
Sup Ct 7 (LD-AR)	2014	81 (74, 87)	45 (21, 70)
Sup Ct 5 (LD-AR)	2016	83 (79, 89)	38 (14, 74)
Sup Ct 9 (AD-LR)	2016	77 (72, 83)	42 (14, 79)
Governor (LD-AR)	2018	79 (74, 84)	40 (16, 69)
Land Comm (LD-LR)	2018	80 (75, 85)	45 (20, 74)
U.S. Sen (AD-LR)	2018	86 (81, 91)	41 (19, 67)
RR Comm 1 (LD-AR)	2020	72 (67, 77)	41 (16, 76)
Sup Ct 8 (LD-AR)	2020	75 (70, 80)	39 (15, 67)
Avg.		79	41

Table G5: EI CVAP – Illustrative HD 75

Office	Year	Latinos	Anglos
Land Comm (AD-LR)	2014	87 (82, 92)	39 (21, 56)
Lt. Governor (LD-AR)	2014	89 (83, 93)	40 (21, 59)
Sup Ct 7 (LD-AR)	2014	93 (89, 96)	34 (17, 52)
Sup Ct 5 (LD-AR)	2016	88 (85, 91)	34 (14, 53)
Sup Ct 9 (AD-LR)	2016	82 (79, 84)	38 (18, 58)
Governor (LD-AR)	2018	83 (79, 86)	47 (28, 70)
Land Comm (LD-LR)	2018	85 (82, 88)	41 (22, 62)
U.S. Sen (AD-LR)	2018	89 (85, 92)	55 (32, 77)
RR Comm 1 (LD-AR)	2020	79 (76, 82)	51 (28, 72)
Sup Ct 8 (LD-AR)	2020	82 (79, 84)	50 (29, 71)
Avg.		86	43

Table G6: EI CVAP – Illustrative HD 77

Office	Year	Latinos	Anglos
Land Comm (AD-LR)	2014	70 (49, 86)	38 (25, 48)
Lt. Governor (LD-AR)	2014	71 (52, 87)	39 (23, 48)
Sup Ct 7 (LD-AR)	2014	68 (44, 85)	40 (26, 49)
Sup Ct 5 (LD-AR)	2016	86 (71, 93)	24 (8, 48)
Sup Ct 9 (AD-LR)	2016	86 (75, 94)	20 (8, 34)
Governor (LD-AR)	2018	89 (76, 95)	22 (9, 39)
Land Comm (LD-LR)	2018	86 (73, 95)	27 (13, 48)
U.S. Sen (AD-LR)	2018	90 (81, 95)	37 (20, 50)
RR Comm 1 (LD-AR)	2020	82 (74, 89)	26 (12, 41)
Sup Ct 8 (LD-AR)	2020	84 (74, 91)	27 (12, 43)
Avg.		81	30

Table G7: EI CVAP – Illustrative HD 78

Office	Year	Latinos	Anglos
Land Comm (AD-LR)	2014	67 (56, 78)	41 (20, 65)
Lt. Governor (LD-AR)	2014	70 (57, 82)	38 (18, 67)
Sup Ct 7 (LD-AR)	2014	70 (59, 85)	40 (20, 65)
Sup Ct 5 (LD-AR)	2016	86 (76, 94)	20 (7, 38)
Sup Ct 9 (AD-LR)	2016	72 (65, 81)	31 (12, 65)
Governor (LD-AR)	2018	76 (70, 85)	26 (11, 47)
Land Comm (LD-LR)	2018	78 (67, 88)	31 (13, 67)
U.S. Sen (AD-LR)	2018	92 (87, 96)	17 (8, 28)
RR Comm 1 (LD-AR)	2020	73 (65, 80)	32 (12, 67)
Sup Ct 8 (LD-AR)	2020	76 (69, 83)	31 (12, 60)
Avg.		76	31

Table G8: EI CVAP – Illustrative HD 79

Office	Year	Latinos	Anglos
Land Comm (AD-LR)	2014	80 (71, 87)	8 (4, 13)
Lt. Governor (LD-AR)	2014	81 (73, 87)	8 (5, 13)
Sup Ct 7 (LD-AR)	2014	84 (77, 90)	9 (5, 14)
Sup Ct 5 (LD-AR)	2016	84 (80, 88)	7 (4, 11)
Sup Ct 9 (AD-LR)	2016	76 (71, 80)	6 (3, 10)
Governor (LD-AR)	2018	79 (74, 84)	7 (3, 11)
Land Comm (LD-LR)	2018	81 (76, 85)	8 (4, 13)
U.S. Sen (AD-LR)	2018	86 (82, 90)	7 (4, 11)
RR Comm 1 (LD-AR)	2020	74 (70, 77)	6 (3, 10)
Sup Ct 8 (LD-AR)	2020	76 (72, 79)	6 (3, 10)
Avg.		80	7

Table G9: EI CVAP – Illustrative HD 81

**State House District 118 (Bexar County)**

Office	Year	Latinos	Anglos
Land Comm (AD-LR)	2014	84 (76, 91)	13 (6, 21)
Lt. Governor (LD-AR)	2014	87 (81, 92)	18 (9, 27)
Sup Ct 7 (LD-AR)	2014	89 (83, 94)	16 (8, 24)
Sup Ct 5 (LD-AR)	2016	90 (84, 94)	14 (7, 21)
Sup Ct 9 (AD-LR)	2016	82 (76, 87)	14 (7, 21)
Governor (LD-AR)	2018	77 (71, 83)	16 (9, 25)
Land Comm (LD-LR)	2018	81 (75, 87)	18 (10, 27)
U.S. Sen (AD-LR)	2018	85 (79, 90)	23 (14, 33)
RR Comm 1 (LD-AR)	2020	79 (73, 83)	21 (13, 32)
Sup Ct 8 (LD-AR)	2020	80 (74, 84)	20 (12, 28)
Avg.		83	17

Table G10: EI CVAP – Illustrative HD 118

**H Appendix: Additional Figures for Opportunity Analysis for Illustrative Districts**

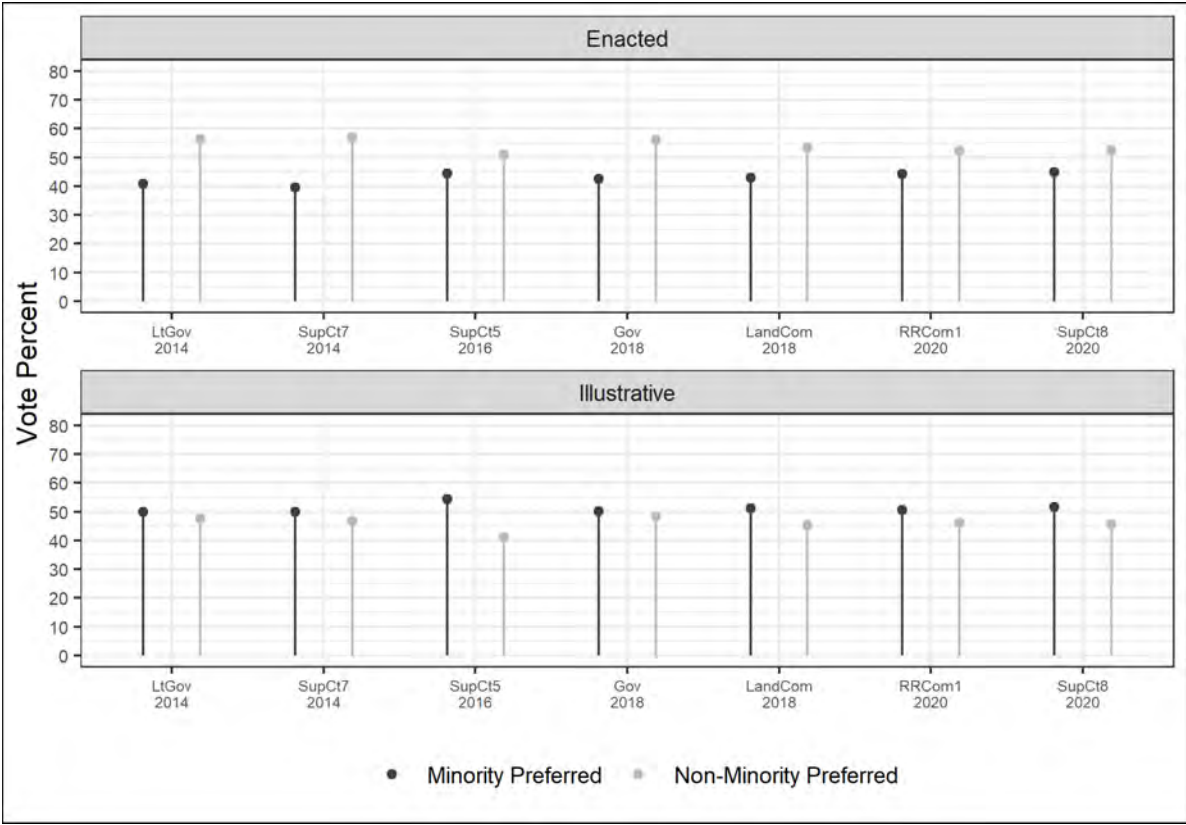


Figure H1: Illustrative CD 23

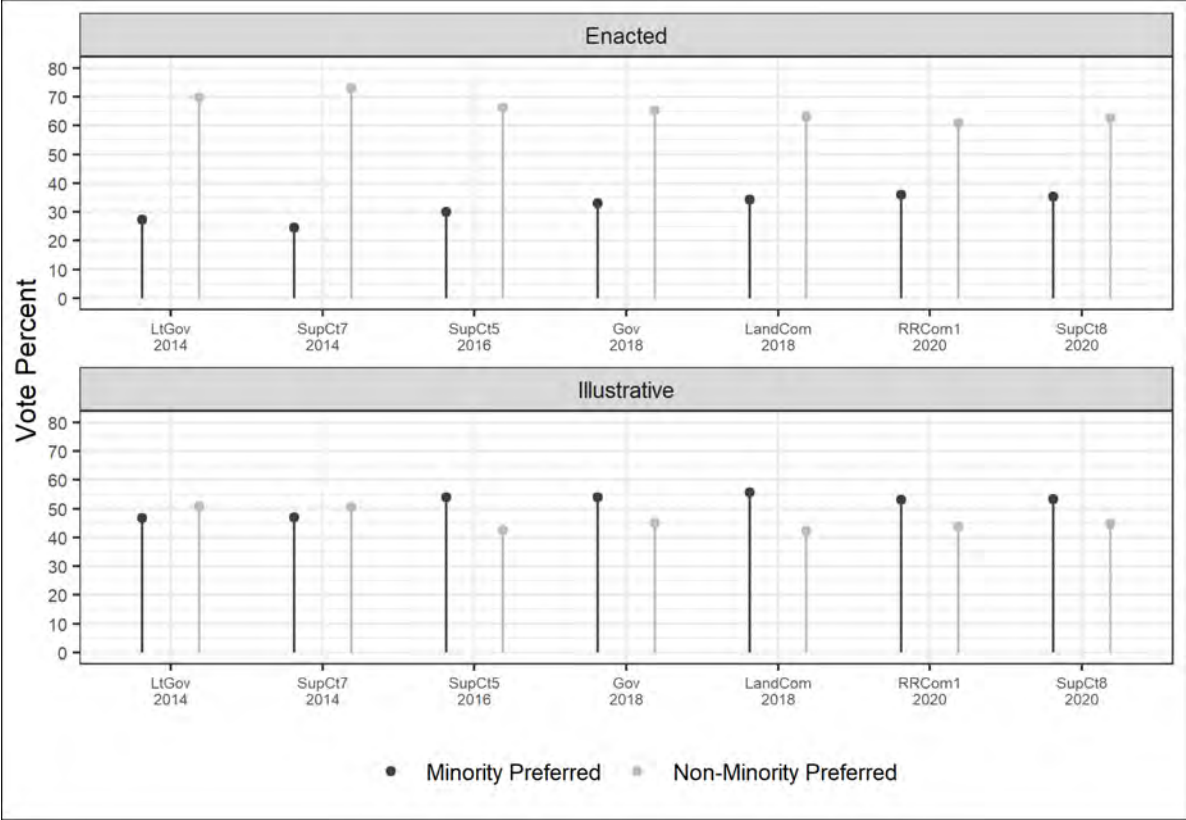


Figure H2: Illustrative CD 38

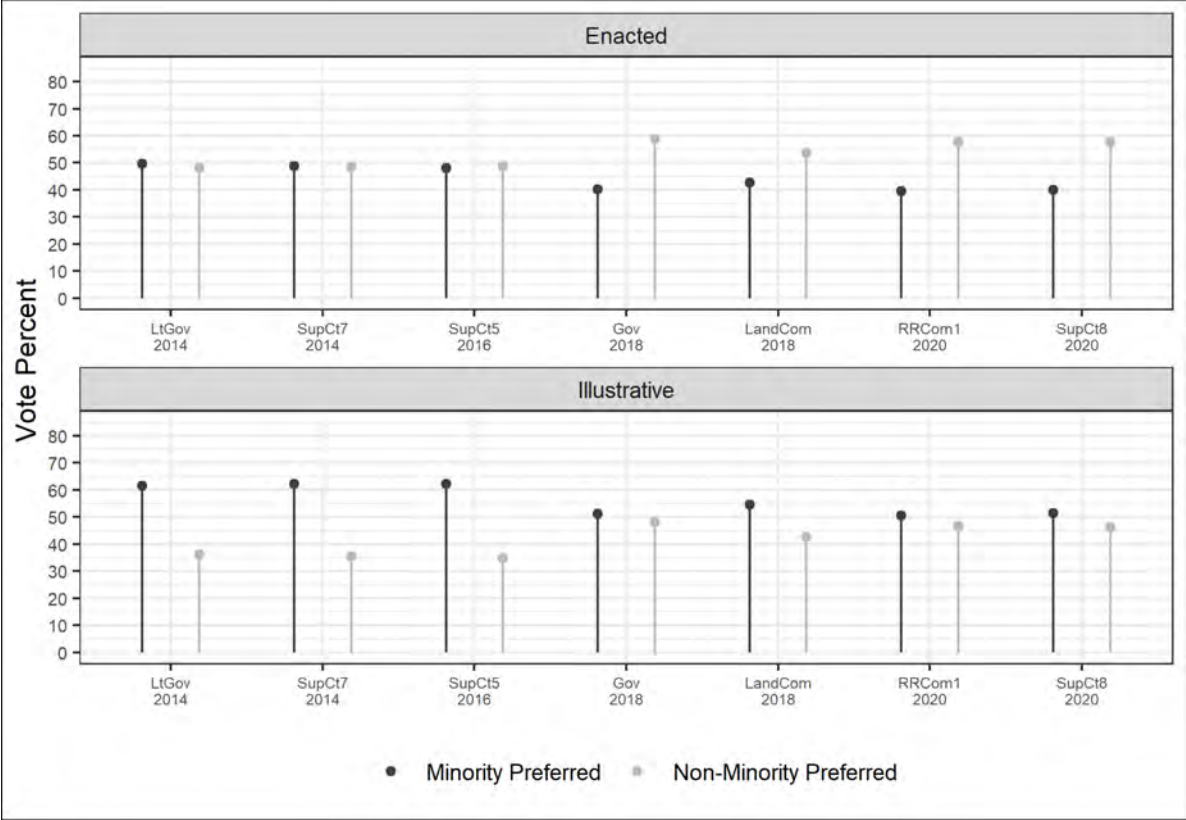


Figure H3: Illustrative HD 31

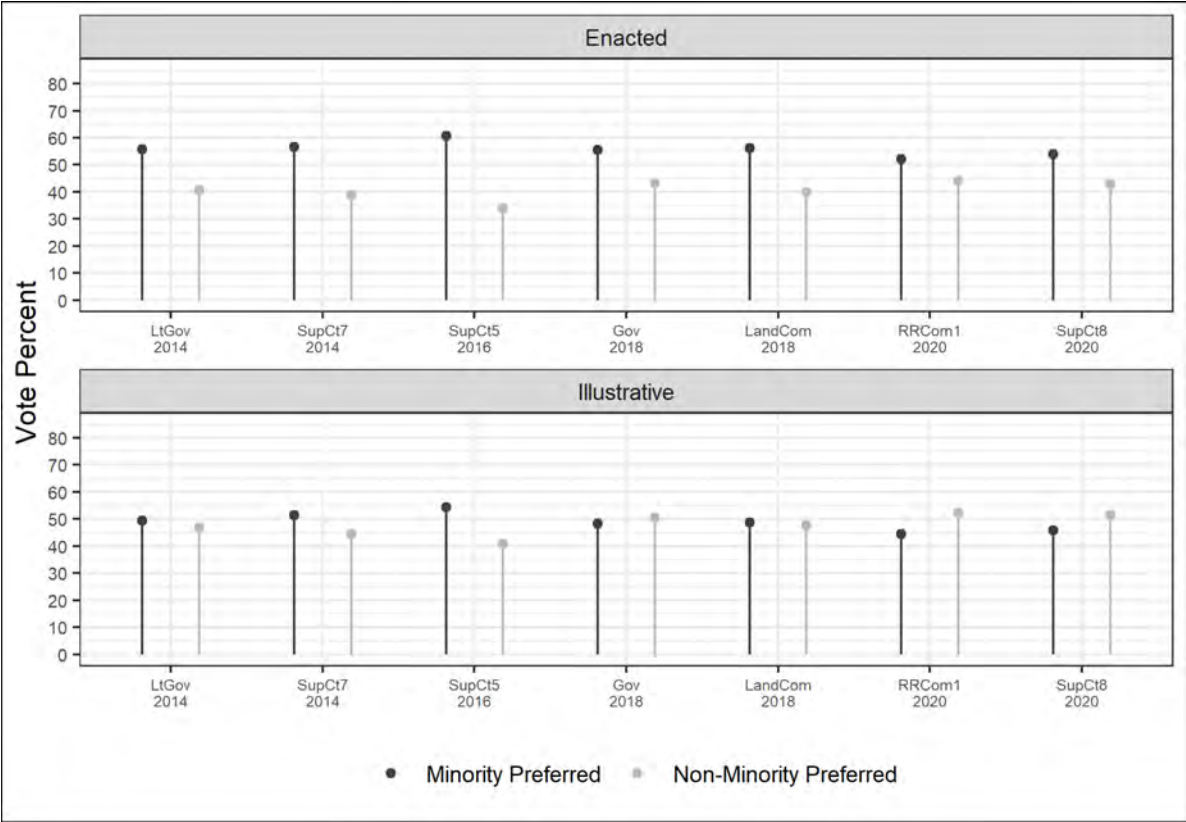


Figure H4: Illustrative State House District 74



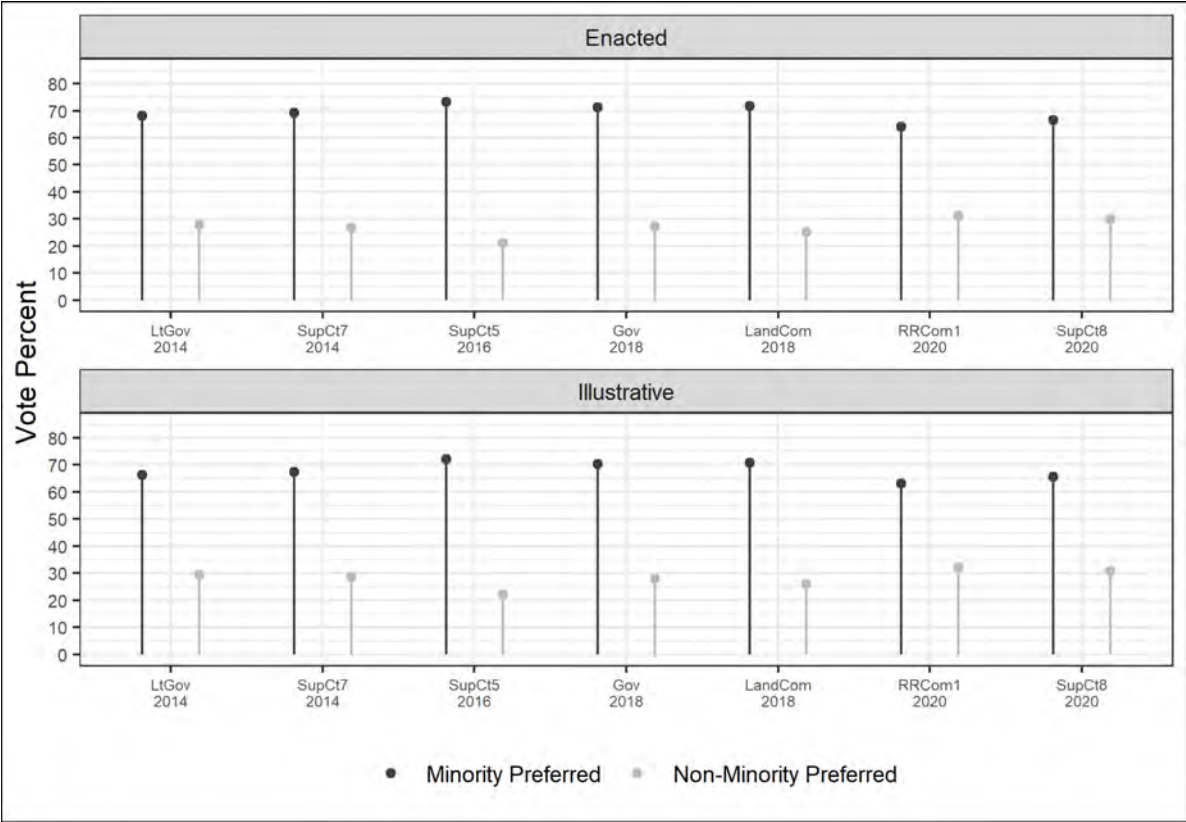


Figure H5: Illustrative State House District 75

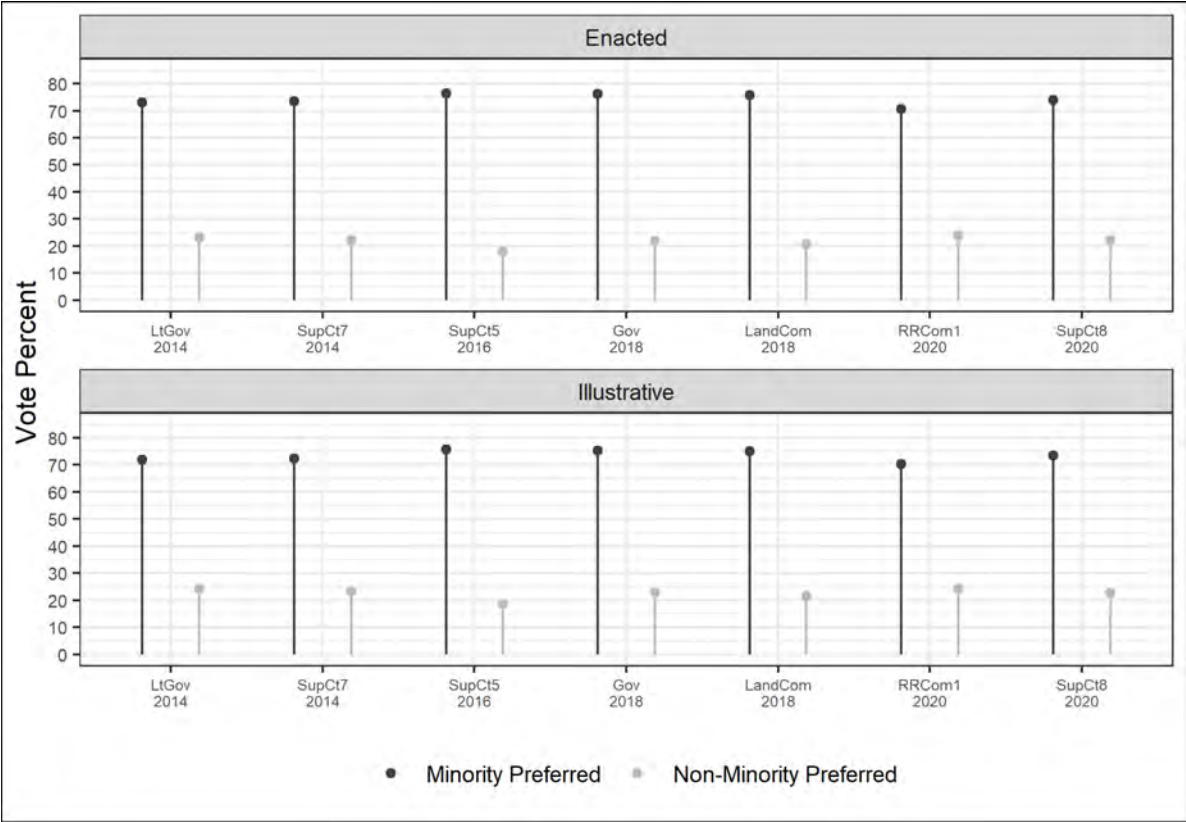


Figure H6: Illustrative HD 77

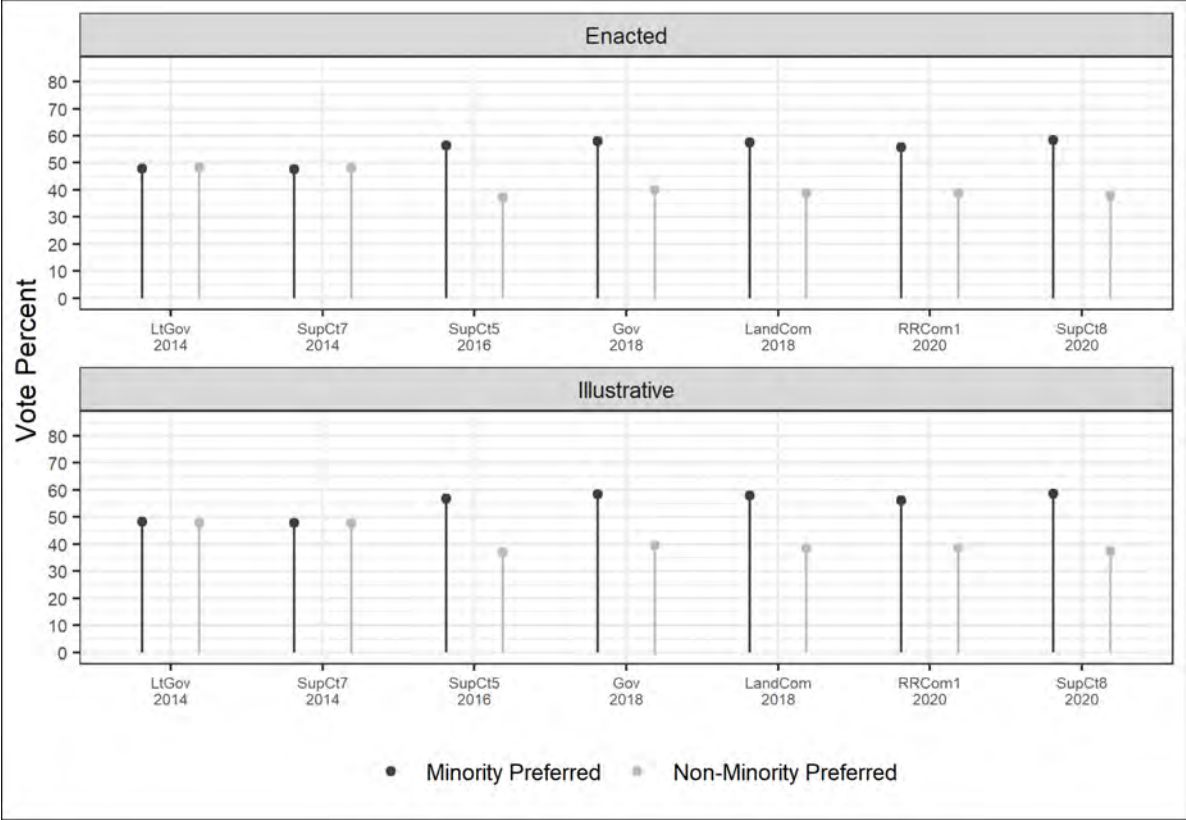


Figure H7: Illustrative HD 78

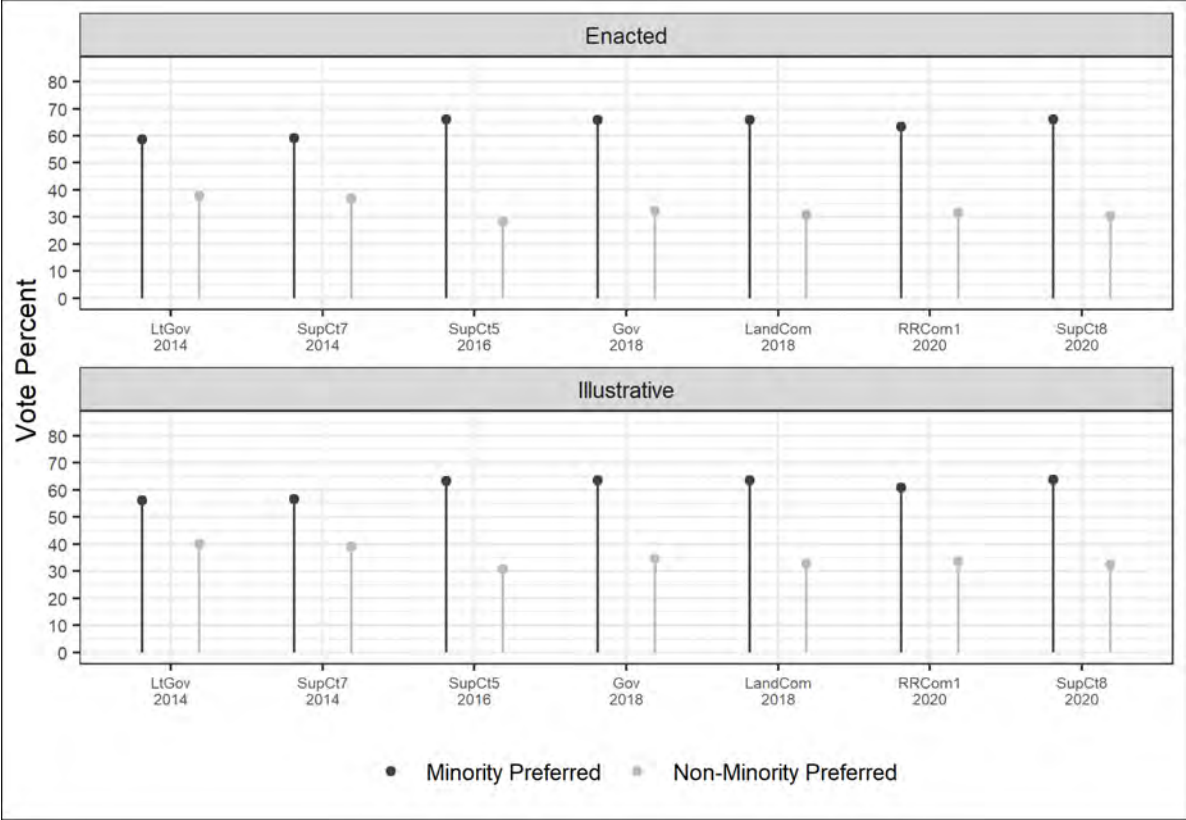


Figure H8: Illustrative in HD 79

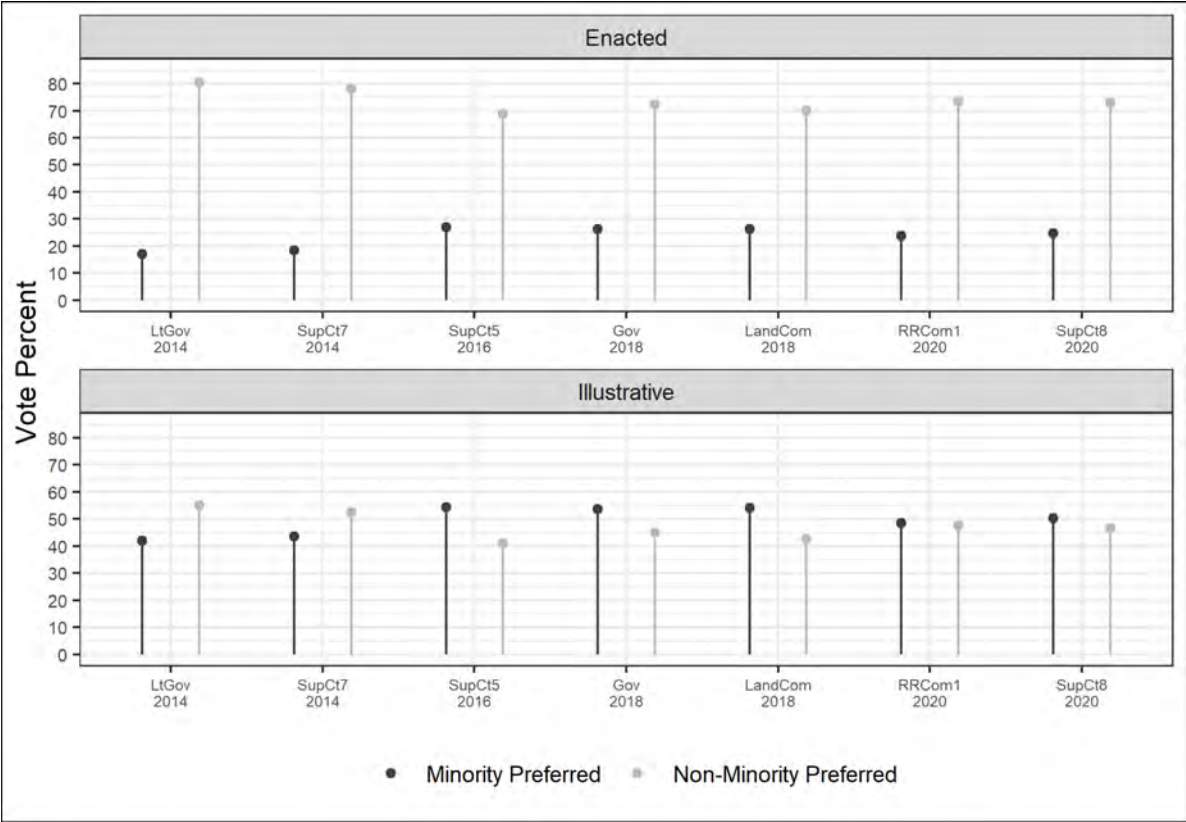


Figure H9: Illustrative HD 81



Figure H10: Illustrative HD 118

A handwritten signature in black ink, consisting of a horizontal line, a loop, and a long, sweeping horizontal stroke.

Ryan D. Enos 20 May 2022